AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. VI. NEW YORK, JULY, 1847. NO. VII.

A. B. ALLEN, Editor. HARPER & BROTHERS, Publishers.

TRANSPLANTING CABBAGES.

BEFORE planting out your cabbages, the ground should be deeply plowed or trenched, and the soil thoroughly pulverized, and supplied with a due quantity of well rotted dung, or other stimulating manure. The dung may either be dug or plowed in, or it may be laid in the bottom of the drills just before planting, and covered by splitting the ridge between the drills with a plow, taking care, however, that the last stirring of the ground should be at the time of planting.

If possible, plant in rainy weather; but if this cannot be done, sprinkle on the beds, containing the young seedlings, just before night-fall, a few bucketsful of water, previously tempered by the air and sun, and shortly after, take them up with a little earth adhering to their roots, and plant them in the plot or field where you intend them to grow. As soon as they are planted, in dry weather, they should receive a liberal supply of water, otherwise they will mostly die, unless they are screened from the sun. When inserting them in the ground, care must be observed not to bend or entangle the roots. The distance of planting must, in some measure, depend upon the strength of the soil, and the size of the variety to be grown; but it should always be such, as the ground between them may be dug and kept clean. When the larger kinds are planted, as the drumhead, &c., two and a half feet between the rows, and about two feet between each plant, will be required; while for the York and smaller kinds, eighteen inches between the rows, and a foot or fifteen inches between each plant will be sufficient. The ground around the plants should be constantly kept loose and free from weeds as long as it can be done without disturbing or injuring the leaves.

The knobs or clubs that are often formed on the roots of cabbages are thought to be caused by insects, and may be prevented by putting wood-ashes into the holes at the time of planting.

HOW TO MAKE GOOD VINEGAR.

COMMON household vinegar is usually obtained from wine, cider, beer, malt, fermented sugar, molasses, &c., the alcohol contained in them being converted into acetic acid by the absorption of oxygen, which is more or less intermixed with gum, sugar, and other vegetable matter. The principal requisites necessary to form any of these substances into good vinegar, are, contact with the air of any temperature between 70° and 80° F., the presence of alcohol, and the addition of some extraneous vegetable matter to promote the acetous fermentation.

Pure, unadulterated cider-vinegar, reduced to a proper strength, is considered the best for general use in this country, and is always attainable by those who possess apple-orchards, or cider of their own, and should be more abundantly supplied in market than it is. An excellent article may be made by putting away good strong cider, without adding anything to it, in one or more substantial casks in a warm place under cover, with the bung-holes open, but covered with fine gauze, in order to admit the air, and there let it gradually undergo the necessary fermentation. If the casks are frequently shaken, and their contents occasionally drawn from one to another, the process is hastened. When fit for use, a small portion of the vinegar should be drawn from each cask, and its place supplied with a like quantity of cider that is fresh. In large establishments the operation may be carried on with a number of casks at once, worked in pairs, by commencing with one filled with good vinegar and another of the same capacity filled with pure cider.

First draw out a quart or a gallon, as may be, from the cask containing the vinegar, and replace it with an equal quantity from that which contains the cider. Thus, by continuing the operation daily, for some weeks, one or more hogsheads, of good, wholesome vinegar may be formed, without the addition of any foreign or injurious materials. When sufficiently sharp, the vinegar should be drawn off into smaller casks or bottles, tightly bunged or corked, and put away in a moderately cool place for use.

A superior vinegar may be made by filling a barrel one-third full with strong cider, reduced by freezing, and letting it stand with the bung-holes slightly covered for at least nine months. If the fermentation does not proceed with sufficient rapidity, a few quarts of the liquor may be withdrawn, boiled for a short time, skimmed, and then poured back into the cask.

A vinegar of good strength may be produced by putting 6 lbs. of sour yeast made of leaven and rye-flour, mixed with hot water, into a cask containing 100 gallons of good cider, agitating the whole with a stick, and then let it remain for six or eight days. It is necessary to draw off this vinegar and bung it up close, as soon as it is made, otherwise it will quickly grow vapid or flat.

Those who have not cider, or grape-juice, at their command, can make a tolerable good vinegar, by any of the following directions, which we copy from Cooley's "Cyclopædia of 6000 Practical Receipts," but it will be less pure and more liable to spoil, than that made from cider, malt, or wine:—

Sugar-Vinegar.—Add brown sugar, 4 lbs., to each gallon of water, and proceed as with cider.

German Household Vinegar.—Take soft water 7½ gallons; honey or brown sugar, 2 lbs.; cream of tartar, 2 ounces; corn-spirit, 1 gallon. Ferment as above.

To prevent mouldiness in vinegar, the following methods have been proposed:—Concentrate by freezing, or by distillation; put up the vinegar in bottles and keep them well-worked; or boil it in a well-tinned kettle for a quarter of an hour; put it in uncorked bottles; place them in a kettle of water with their necks above the surface, and let them boil for an hour; then take them out, cork them up, and the vinegar will keep for several years without growing mouldy or turbid.

How to Make Welsh Rare-bits.—For each person take a quarter of a pound of rich new cheese, chop it fine, and put it into an iron or tin saucepan. Add a little water or beer, and stir it over the fire until the cheese is dissolved. Have in readiness a slice of toast on a warm plate, upon which the mess should immediately be poured. For seasoning, use pepper, mustard, and salt, according to your taste.

Blackberry Mush.—Boil two quarts of blackberries ten minutes, and add half a pint of molasses. When it boils again, dust into it, from the edges, three table-spoonfuls of fine wheat-flour; stir it all the time, and when the flour is completely mixed in, it is done enough. It makes a cheap and healthful dessert for the table, and is capital for the children to take to school to eat with bread, for dinner.

CULTIVATION OF TURNIPS.—NO. 1.

The cultivation of the turnip is of great antiquity. It was lauded by Columella, and even in his time the ancient Gauls fed their cattle on them in winter. The Romans were so well acquainted with its culture that Pliny mentions having raised some weighing forty pounds. Turnips were cultivated in the gardens of Britain in the time of Henry VIII.; but they were not much raised in that country as a field crop, until about the year 1730, when they were introduced into Norfolk, by Lord Townsend, from Germany. Before that time it was difficult to manage light soils to advantage, the land becoming soon exhausted by the repeated growth of grain; and as no regular rotation of green crops was then known, the land, when thus worn out, was necessarily left fallow, or thrown into pasture, in order to recruit. The soil of Norfolk, being naturally very light, yielded but little under this system; but turnip-husbandry, in regular rotation, has brought that county into a high state of fertility. They are now regarded as a fallow crop, and occupy that part of the rotation which closes one course, and commences another.

Soil.—Turnips delight in a loose soil, on new land, in which they are raised to the greatest perfection, and with the least hazard. Sandy loams, in good heart, are most favorable to their growth, though they will thrive in strong loams if they are not wet; but the crops in the latter will be rank in their taste, and run to flower at too early a period in spring. It is useless, however, to attempt to raise them on a stiff, clayey soil, or one that is too wet, unless they are perfectly pulverized, drained, and rendered fertile, if necessary, by the addition of manure; and even then, in the dry, hot climate of America, they are a very uncertain crop. No crop which is raised, is so well adapted as turnips, for the application of every kind of manure.

Manures.—Wood-ashes, burnt-turf, sheep-fold, chalk, sea-sand, lime, rape-dust, guano, broken bones, bone-dust, oil-cake, sea-weed, and indeed every other kind of fermented manure, are all calculated to produce good crops of this vegetable. But nothing hastens its growth so much as liquid manures, such as that of bones dissolved in sulphuric acid, guano, &c., applied about the roots of the plants towards evening, care being observed that it is properly diluted. The Scottish farmers have a maxim, that, "The turnip is the mother of the dung-heap; and the dung-heap is the mother of everything else." This is literally true, if the cultivation of green crops be the foundation of good husbandry, as is undoubtedly so in many cases. Hence the turnip should be placed at the head of the English system of husbandry the same as the corn crop stands at that of the American.

Varieties.—There are a great variety of this valuable root, all of which may be classed under the heads of the *White*, the *Yellow*, and the *Swedish*; but to cultivate all is not so desirable as to plant such as are the most productive and are best adapted for use. Those which are deemed best for culinary purposes are the early Dutch and red-top, for autumn and early winter supply; and the yellow Aberdeen, the golden Maltese, and ruta-baga (Swedish), for spring. The latter remain firm, solid, and are good quite late in the spring, when

most other kinds have become pithy and unfit to eat. The varieties best adapted for feeding stock, are the Swedish (ruta-baga), Dale's hybrid, Lawtown hybrid, the Norfolk, and the large globe.

Period of Sowing.—The period of sowing the flat varieties, varies according to the climate and the season in which they are intended to be consumed. Those designed for summer use should be sown early in spring. But the main sowings intended for the kitchen and the feeding of stock during the winter and spring, should be done in Canada and the northern parts of the United States by the middle of July; but in the southern parts of New York, New Jersey, Pennsylvania, and most of the Western States, the time may be prolonged until the middle of August or the beginning of September. If sown earlier, they are not so tender nor so finely flavored; and if sown later, they will not generally attain their full growth. The ruta-baga, the globe, and the Norfolk varieties require more time to perfect themselves. Therefore, they should be sown at least a month earlier than the other kinds.

Selection and Preparation of the Soil.—It has been proved by long experience in this country, that old sod, well rotted, or newly-cleared land, recently burnt over, produces the largest and the finest flavored roots. Those who do not possess lands of this description, but have a few sheep, can raise a small patch of the flat turnips by folding the ground at night for two or three months previous to sowing the seed. But those who design to enter into field culture on a large scale, must render their land as rich as possible, by adding manure, especially if the crop is to be removed from the ground.

In the cultivation of turnips, there are four things which ought to be carefully attended to: 1st, to have the ground in a finely pulverized state. This may be accomplished by deep and rough plowing just before the freezing of the ground; 2d, to force forward the young plants into rough leaf, in order to secure them from the attack of the fly. This is best effected by drilling the seed with guano, bone-dust, rape dust, prepared compost, or other stimulating manure, or by soaking the seed in a solution of concentrated chemical manures; 3d, to have the ground clean and free from weeds before the seeds are sown, and watching the growth of weeds afterwards, and cutting them off before they choke the crop; 4th, to keep the ground constantly loose and open about the plants, by stirring it between the drills in dry weather. The oftener the ground is stirred the better, provided you do not disturb the roots of the plants.

In preparing a field for a crop of turnips, unless it be folded or burnt land, it should be plowed and cross-plowed immediately after harvest in the fall. A good coating of barn-yard manure should be turned under, which it is not necessary should be rotten, as it will become thoroughly decomposed and incorporated with the soil, at the time of sowing. If barn-yard manure cannot conveniently be had, its place may be supplied by plowing in a green crop of clover, lucern, or buckwheat, the summer before, and let the land lie in a fallow during the fall. About the beginning of summer, the next year, another plowing must be given, with repeated harrowings, in order to destroy the weeds and pulverize the soil. Just previous to sowing broadcast, the ground must receive a dressing of well rotted compost or barn-yard manure, which should immediately be plowed in; but if guano, bone-dust, &c., be used, it is better to sow in drills. If the land be dry, let it be plowed quite flat; but if wet and springy, form it into ridges or beds sufficiently high to keep off the water; or, after the last manuring, plow it into four-furrow ridges and drill on the top of each.

Choice of Seed.—New seed should always be sown in preference to old; and it is thought to do better if brought from a cold climate to a warmer one, or changed as often as every other year, as otherwise, it is believed to degenerate, and the quality of the roots become impaired. Should the farmer raise his own seed, he may select turnips of a large size of a perfect form, and plant them in a row about a foot apart as early in the spring as the season will admit, taking care to keep them free from weeds and voracious birds until mature. They will ripen their seeds in this country from June to August, according to the climate and the latitude of the place, which, in general, will be sufficiently early for the autumn crop. No two varieties must be allowed to grow together, nor in the neighborhood of any of the cabbage or brassica tribes, as their pollen is liable to mix and produce worthless seeds. When sufficiently ripe, the seed-stalks may be cut, well dried in the sun, the seeds beaten out, and stored for use.

Preparation and Sowing of the Seed.—The quantity of seed recommended, varies, according to the condition of the soil and the variety employed—say, from a pound and a half to six pounds to the acre, if sown broadcast, or one-half as much if sown in drills. When sown broadcast, it may be more regularly distributed by mixing it with a half bushel of damp saw-dust, or other materials, to the acre in order to increase its bulk. Whether sown broadcast, or in drills, the growth of the plants may be greatly accelerated and sooner carried forward beyond the power of the fly, by soaking the seeds for 36 hours in a solution of 1 lb. of guano to 10 gallons of water; or 1 lb. of Kagenbusch and Co.'s germinating compound to 4 gallons of water, the same length of time.

The most approved mode of cultivation, when land is high and labor cheap, is to sow in drills on the top of ridgelets formed by the plow, allowing the plants to remain where sown, and thinning them out at proper intervals, the first time of hoeing. When the ground is ready, and guano, bone-dust, or barn-yard manure is to be applied, commence opening the drills with the plow, making the furrows from 20 to 24 inches apart, from centre to centre, according to the strength of the land. Then spread the manure equally in the drills, and cover it with the plow, by splitting the furrows in the middle, turning one-half of the earth each way, so that the manure may lie in the centre of the drill when closed in. An acre of ground will require from 250 to 400 lbs. of guano; 15 to 20 bushels of bone-dust; 4 or 5 bushels of bones dissolved in 100 lbs. of sulphuric acid; 200 to 250 lbs. of superphosphate of lime; 20 or 30 bushels of wood-ashes; or from 500 to 1000 bushels of fine, well-rotted, barn-yard manure.

When the drills are thus completed, the seed may

be sown with a drilling machine, if one can be had; if not, and the quantity of ground be small, a little furrow may be made with a hoe or pointed stick along the top of the drill, about an inch and a half, or two inches deep; and the sowing may be done by means of a bottle, having a quill inserted in the cork, with which the seed may be deposited tolerably even, and with considerable rapidity. The seed is best covered by running a light roller over the top of the drills; or, in a small way, it may be done by drawing over them the back of a shovel loaded with a small weight.

In newly-settled countries, where land is cheap, and labor high, it is more economical to sow turnips broadcast, and cover the seeds by means of a brush-harrow, or rake. The ground, in this case, must be plowed in the fall, replowed the following summer, and finely pulverized by harrowing previous to sowing the seed. When newly-burnt land is employed, the ground should first be cleared of all logs, brands, and loose stones. Then, without any further preparation, the seed may be sown broadcast, and the ground immediately after run over with a heavy iron-toothed harrow, which should be followed by an iron rake or hoe, in order to more perfectly cover the seed around stumps and large stones, or other places where the harrow may not have done its work.

By adhering to any of the modes as above, which may be safely practised wherever circumstances are favorable for their adoption, good crops may generally be secured, unless affected by drouth or the fly, both of which must carefully be watched, and if a failure is likely to ensue, measures should immediately be taken to resow the ground. In our next number we propose to treat of the after culture, and the mode of securing and disposing of the crops.

THE BARBERRY-BUSH NOT INJURIOUS TO GRAIN.

Much has been written, and particularly of late, for the last hundred years in reference to the influence of the barberry in blighting grain; and as recently as the year 1826, a statute was passed by the legislature of Connecticut, which is still in force, for the eradication of this harmless shrub. In an article written by the late Dr. Dwight, of Yale College, in answer to some inquiries made in 1800 by the Connecticut Academy of Arts and Sciences, it is stated, that, in the year 1796, the town of New Haven appropriated $200 for the purpose of destroying barberry-bushes within its limits, and that individuals were supposed to expend as much more. This was done, it is stated, because, from examination, the evidence was deemed conclusive, that the bushes had an injurious effect on grain. Dr. Dwight supposed that the blight was occasioned by the wind carrying the effluvia and the decayed blossoms over the field; and he states that wherever they fell, the grain was blasted. Others contend that the mischief is done by the pollen of the barberry flowers, commingling with that of the grain; but this theory falls to the ground, when we consider the fact that the barberry is out of flower several weeks before either wheat or rye comes into bloom.

The error of this doctrine has been ably and scientifically refuted by Messrs. Du Hamel, Broussonet, and Drs. Grenville and Lindley, a notice of which will be found on page 243, of our last volume. And besides, numerous instances are on record in this country, where grain has been fully exposed to the barberry in various stages of its growth, without the least injurious effect. As a case in point, we quote from a communication by Mr. Warren Hecox, of Skaneateles, in the 7th volume of the Cultivator, in which he states, that for the purpose of testing this question, he planted a barberry-bush in the midst of a field of wheat. "On my wheat ripening," says he, "it proved a good crop of plump wheat, and no way injured by the barberry in any part; *the heads of wheat which shot up in the top and among the branches, some of which rested or lay reclined on the leaves of the bushes, were equally plump and good as any in the field.* The bush was green and thrifty. Some of the branches or limbs had grown ten or twelve inches; there was a sprinkling of oats in the wheat, some within five feet of the barberry, as plump and good as ever I saw. There was an acre of barley in the same field, twelve or fifteen rods distant, as good and plump as any I ever had. My neighbor's field of winter wheat, only twenty-five rods distant, was not at all affected or injured, but plump and good."

PATENT SELF-ACTING CHEESE-PRESS.

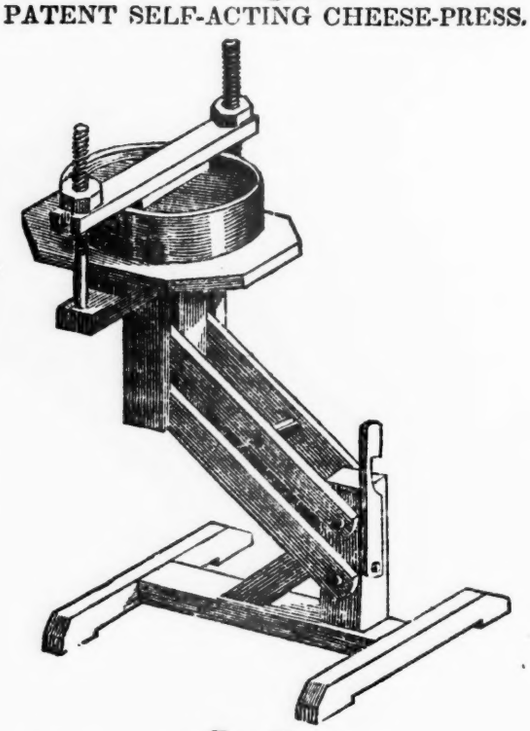


Fig. 42.

For cheapness and simplicity of construction, strength, power, durability, and the perfect manner in which this implement does its work, we think it will eventually supersede every other cheese-press in use. It is so constructed, that by means of two pair of double-acting levers, the cheese presses itself, by its own weight, and this, in ten-fold proportion. Thus, if a cheese weigh 20 lbs., it will exert a constant pressure on itself of 200 lbs.; and whenever a greater pressure is required, for every pound added, a power of ten pounds is gained; or in other words, if it be desirable to exert an additional force on a cheese of 1000 lbs. it

will only be necessary to put on the press a parcel of stone or any other material weighing 100 lbs.

The advantages of a press of this kind must be obvious to every one, as it serves equally well to give the gentle pressure required for the delicate cream-cheese, as for the thorough and more perfect condensation of those made of milk. The cut denoted by Fig. 42 gives a tolerably good idea of the appearance of the machine; but the manner in which it acts cannot intelligibly be explained without the article itself. Price $7.50.

MODE OF DRAINING AND RECLAIMING SINK-HOLES OR STAGNANT POOLS.

In many parts of the country there exist deep depressions or hollows in the surface of the earth, commonly known under the names of sink-holes, frog-ponds, &c., which are filled a great part of the year with stagnant water, rife with pestilence and disease, and contaminating the air during the summer months, for miles around. These pools, when drained, afford an abundance of muck of the most valuable kind for making composts, or mixing with barn-yard manure; or they may readily be converted into rich tillable land. In many places where these holes abound, at some distance below the surface there is a stratum of loose sand, which will freely admit the passage of water; and it is generally found that their bottoms consist of a thin stratum of clay or impervious mud, overlying the sand. In order to drain them, all that is necessary, is, to dig or bore one or more holes in the bottom, till you reach the stratum of sand, when the water will be immediately absorbed and the pond become dry. Several pools of this description, on Long Island, have lately been drained in this way with perfect success.

A friend of ours informs us that within his recollection, there was a large frog-pond, about 40 miles from Boston, which covered an acre of ground. Its middle was overgrown with alders and other aquatic shrubs, affording a safe retreat for the black birds to rear their young, while near the margin, the water was a yard or more deep, harboring nothing but frogs and reptiles, which had wantonly been pelted with stones from year to year, by every idle urchin or teamster as they passed that way. The pond had remained in this condition for at least a hundred years, having passed through the hands of several owners, who had regarded it as of no value, until at last it was suggested, that if it were properly drained and cleared of its bushes it might be converted into a fertile meadow, and even into a rich garden for the production of vegetables. The owner, being a man of good understanding, took the hint, and one dull hay-day, in the month of July, went with his men and commenced digging a broad, deep ditch, with the view of draining its water into the lower level of a neighboring pond. The next morning, the weather being fine, the mowing was resumed, and no attention was paid to the ditch for some days, when, upon examination, it was found that the water in the pond had fallen several inches, having evidently been absorbed by the porous sand at the bottom of the newly-formed trench.

Advantage was immediately taken of the last named circumstance, and several broad pits were sunk near the margin of the pond, with which they were connected by short, deep drains. By this means, the pond soon became dry, which, notwithstanding the laughter and ridicule of his neighbors, encouraged the owner to persevere. The winter following, the bushes were all grubbed up by the roots and burnt on the spot the next spring. The soil, it was ascertained, contained the trunks of a number of large pine-trees, in a sound condition, which, probably, had fallen into the pond some centuries before, and, in process of time, became water-soaked, sunken, and finally were imbedded in the mud. These trees, in the course of the year, were dug out, cut up into convenient lengths, and carried away for fuel. Early in June of the second season after the pond was drained, the ground was levelled, thoroughly harrowed, and planted with potatoes, which yielded a fair crop. What the subsequent treatment was, our friend was unable to inform us; but in passing that way some ten years afterwards, he remarked that the "old frog-pond" was heavily laden with a beautiful crop of grass.

THE DOMESTIC FLORA OF CHINA.—NO. 1.

We have lately received from London a very interesting work entitled "Three Years' Wanderings in the Northern Provinces of China," containing an account of the Agriculture and Horticulture of that country, new plants, &c., &c., by Robert Fortune. This work, which is the result of patient research and untiring perseverance, will, doubtless, wherever it is read, effectually dispel the mystery that has so long shrouded the *penetralia* of the "Celestial Empire." Instead of "a highly civilized nation, as it has hitherto been represented, "supreme in arts and agriculture, and powerful in proportion to its numbers," we find China to consist of little more than a country of "ruined cities, falling temples, venal officials, a cowardly populace, and a feeble government." Nor do the much lauded arts and sciences of the people justify the extravagant praises bestowed upon them by Du Halde, Macartney, and others. In truth, it would seem that China only became partially known to Europeans when their own country was in a state of barbarism, and when the refinement and skill of the Eastern nations formed a striking contrast with those of the West. But since that period, China has slowly been on the decline, while Europe and America have rapidly advanced. If, however, this singular people do not hold a high rank in the scale of civilization, it cannot be said that they take a low one. They are ingenious, industrious, patient in their labors, hospitable and liberal-minded, and often exercise in perfection many of the highest virtues of a patriarchal age, as our author has clearly shown.

Mr. Fortune was sent to China by the London Horticultural Society for the purpose of obtaining new plants of an ornamental and useful character, with instructions to give every possible attention to the horticulture and agriculture of that wonderful country. His work therefore contains, in addition to the usual subjects treated of by travellers, a large amount of information on these two points, which we propose to publish in a condensed form in two series of articles, one to be headed the "Domestic Flora of China," and the other the "Agri

culture of the Chinese." Amongst other things of interest, the author completely elucidates the history of the Chinese tea, having been an eye-witness of all the operations attending the culture and preparation of this great article of commerce. He has established, beyond a doubt, the important fact, that black and green teas are both produced by the same plant; and that the difference in their quality depends entirely upon the manner of preparation. We will devote the remainder of this number to his highly interesting account of the flora of the island of Chusan.

Chusan, in spring, is one of the most beautiful islands in the world. In the morning the grass sparkles with dew, the air is cool and refreshing, the birds are singing in every bush, and flowers are hanging in graceful festoons from the trees and hedges.

The new plants of the island, some of which I had discovered in the preceding autumn, I now saw in flower for the first time. Early in spring the hill-sides were covered with a beautiful Daphne with lilac flowers (*Daphne fortuni*, Lindl.); *Azalea ovata*, Lindl., certainly one of the finest and most distinct plants of this kind which I have introduced, also grows wild on the hills, and was in full bloom at this period. A fine new Buddlea (*B. lindleyana*) had a most graceful appearance, as its long spikes of purple flowers hung in profusion from the hedges on the hill-sides, often side by side with the well-known *Glycine sinensis*. Another plant, certainly one of the most beautiful shrubs of northern China, the *Weigela rosea*, was first discovered in the garden of a Chinese mandarin near the city of Tinghae on this island. This spring, it was loaded with its noble rose-colored flowers, and was the admiration of all who saw it, both English and Chinese. I have great pleasure in saying that all these plants and many others, natives of Chusan, are now growing in our gardens in England.

The flora of Chusan, and all over the main land in this part of the province of Chekiang, is very different from that of the south. Almost all the species of a tropical character have entirely disappeared, and in their places we find others related to those found in temperate climates in other parts of the world. I here met, for the first time, the beautiful *Glycine sinensis* wild on the hills, where it climbs among the hedges and on trees, and its flowering branches hang in graceful festoons by the sides of the narrow roads which lead over the mountains. The *Ficus nitida*, so common around all the houses and temples in the south, is here unknown; and many of those beautiful flowering genera which are only found on the tops of the mountains in the south, have here chosen less exalted situations. I allude more particularly to the *Azaleas* which abound on the hill-sides of this island. Most people have seen and admired the beautiful azaleas which are brought to the Chiswick fêtes, and which, as individual specimens, surpass in most instances those which grow and bloom on their native hills; but few can form any idea of the gorgeous and striking beauty of these azalea-clad mountains, where, on every side, as far as our vision extends, the eye rests on masses of flowers of dazzling brightness and surpassing beauty. Nor is it the azalea alone which claims our admiration; clematises, wild roses, honeysuckles, the glycine, noticed above, and a hundred others, mingle their flowers with them, and make us confess that China is indeed the "central flowery land." There are several species of myrtaceous and ericaceous plants, which are also common on the hills, but no species of heath has ever been found, and I believe the genus does not exist in this part of the country.

THE GARDEN-ENGINE.

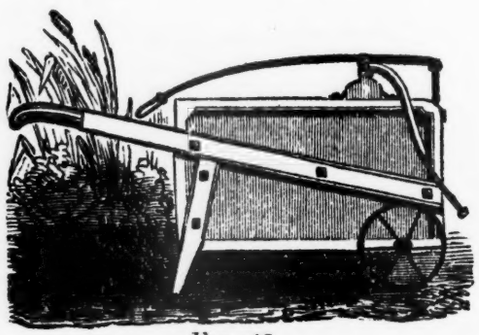


Fig. 43.

The box of this engine, which holds 40 gallons, is placed on cast-iron wheels, with handles attached, so that a man or a boy can move it about with ease. The calibre of the pump is 2½ inches in diameter, and is mounted with double-acting valves and pistons, that will throw water, with the aid of one person, 70 feet horizontally, or to the height of 40 feet.

This engine is well calculated for watering gardens, washing windows, destroying vermin on trees and shrubbery, protecting buildings against fire from other buildings, &c. Soap-suds, or diluted gas-water, thrown by it on plants or trees, will destroy worms and insects. It will prove a very useful implement to horticulturists, and may be serviceable, in time of drought, for watering gardens, nurseries, &c. Price $40 to $50.

NORTHERN PLOWS FOR THE SOUTH.

A distinguished planter in Mississippi writes us, that he has a northern cast-iron plow, which he has used for four years, and that he has but just had occasion to put on a second point or share to it. We believe it cost him originally $6.00; and he adds, if it had cost me $20, it would have been cheaper than any home-made plow at $7.

Look at the advantage, he writes, of possessing one like it. No sharpening, no mending, no laying, and no time lost in running to the blacksmith's shop. One of our common plows would have cost the first year 75 cents for sharpening; $1.25 for loss of time going to the shop, &c. The second year, $1.75 for laying and sharpening, and $1.25 for loss of time. The third year the same. Thus one team would have used up two plows ere this at $7 each, and $10 for expenses on them; whereas my northern plow, with two or three more points, may last me four years longer. If all my tools were of this stamp, I could keep a set of two-horse and a set of one-horse plows, a set of cultivators, scrapers, bull-tongues, shovel-plows, &c., not costing over $150. I could thus employ more workmen, and my plows would not cost me over $20 to $30 a year on an average. Now a set of our

single-horse turning plows certainly cost me over $30 a year without counting the loss of time going to the shop and working with bad tools.

I cultivate seventeen acres per hand, not including my garden, potato, or oat crop; and I can do this as easily as my neighbors cultivate twelve to fifteen acres. Many of the planters within 25 to 30 miles of me will scarcely credit this, because they do not know the economy and saving of labor in using improved implements. I have now ten acres of corn growing per hand, from which I hope to raise 3000 bushels this season.

REVISIT TO GENERAL JOHNSON'S FARM.

AGREEABLY to promise in our April number, we have made another visit, in company with the Board of Agriculture of the American Institute, to the farm of General Johnson, in Brooklyn. We were highly gratified in walking over the grounds with the old gentleman and his sons, and had a fine opportunity to judge of the capabilities of his farm and of the manner in which it is conducted. His crops all looked well and some of them were in a high state of perfection, particularly his pie-plants (rhubarb), of which he has growing eight or nine acres. We noticed several plants of the Victoria rhubarb, with leaves nearly a yard in diameter, and stalks of a corresponding size. His horses and other stock were in fine condition, and showed the effects of good keeping by his improved mode of soiling.

There is one feature in regard to General Johnson's farm, that we cannot omit to notice, which, in our estimation, entitles him to be considered as a benefactor. It appears that his lands with those of others in the vicinity were laid out, in perspective, into city lots, about ten years ago, and had he yielded to the offers that were frequently made him, his farm, long ere this, would have been cut up into streets, divided, sold, partially built over, and probably would have been doubly profitable to himself in a pecuniary point of view. But what has been the result? The farm has been kept together, carried on and maintained after his own heart, and has annually produced to the public a large amount of food and vegetables which otherwise never would have existed.

NEW YORK FARMERS' CLUB.

Special Premiums by Individuals.—At a late meeting of the club, the Secretary announced the following special premiums to be awarded at the Twentieth Annual Fair of the American Institute:—

By General James Tallmadge, late President of the Institute, for the best twenty yards of American Linen, regard being had to the economy of its production, a large GOLD MEDAL.

By Shepherd Knapp, Esq., Vice President of the Institute, FOUR GOLD MEDALS, for the following objects:—1st, For an Improved Farm-Waggon for farming purposes, combining the following requisites: lightness of draft, strength, durability, and moderate cost. 2d, For the best four-wheeled leather-covered waggon, capable of carrying four persons and designed for common use, taking into consideration strength, lightness, economy, durability, and appearance, the price to be given—also an estimate of the cost of one with seats for six. 3d, For the best Double Harness for a waggon. 4th, For the best Single Harness for a waggon.

It is a rule of the Institute that the exhibitor has no claim to a premium, if there is no competition.

Premium for the Analysis of Indian Corn.—Mr. Roswell L. Colt, of Patterson, N. J., authorized the Institute to award a premium of ONE HUNDRED DOLLARS for the best analysis of an entire plant, including the grain, cob, silk, husks, spindle, leaves, stalk, and roots, of Indian Corn.

Although we highly commend Mr. Colt for this liberal and praise-worthy offer, we think that he will see upon reflection, an insuperable difficulty in appropriating the money in the shape of a premium. For it is well known that almost every variety of Indian corn differs in the nature and proportions of its constituents; and should two or more competitors each select a distinct variety for analysis, it is obvious that they would arrive at different results, however able or faithful they might perform their work. We would suggest, therefore, that the sum be placed in the hands of an able chemist, with instructions to expend it, as far as it will go, on some well-known variety of corn, commencing with the grain, cob, husks, silk, &c., and in due time report the same to the parties concerned.

THE STRAWBERRY QUESTION.—Mr. Wm. R. Prince wishes to put on record the fact, that the strawberry which Downing has so often commented upon as the Hovey seedling, with perfect blossoms and of a vacillating character, is not that plant, but a *totally distinct variety in foliage, flowers, and fruit.* He proposes to publish an article on the subject, as soon as the fruiting season of the strawberry is past.

POPULAR ERRORS.—NO. 4.

Summering Manure.—Notwithstanding all that has been said and written, showing that fresh manure immediately applied to the land, or such as is preserved in tanks or under cover, or by a mixture with straw or earth, is at least four times the value of that left in the barn-yard all summer exposed to sun and rain, wasting its richness in the air and drenching its fertilizing salts away; yet many farmers still believe, or act upon the principle of belief, that manure is like cider, growing better with age; and thus their dung is safely kept in the yard till August or September, a great nuisance to all around, and a sad loss to the growing crops.

We are well aware that rotted manure is considered indispensable for certain crops, and therefore many say they prefer to sustain the loss of its rotting to the inconvenience of using it in an unfermented state. Let those who thus think, consider, that when manure has become rotted it is then mere humus or vegetable matter, such as decomposed leaves of trees, straw, hay, cornstalks, muck, turf, peat, road and ditch scrapings, which may be had on every farm to answer the same purpose as the rotted manure. How many farmers let all these substances go to waste, thus subjecting themselves to a double loss—a depreciation in the value of their manure, and a neglect of the vegetable matters on their premises and around them.

REVIEW OF THE FEBRUARY NO. OF THE AGRICULTURIST.

Planting the Isabella Grape Vine.—"He that runs may read;" and he that reads may plant his vines without any further directions. It needs no comment—turn back and read it. Please, Mr. Editor, give us the after culture in the same common sense style. All of your readers cannot turn to the book you refer to. [Will probably do so another year].

Cisterns in Farm Yards.—Before reading the communication of my particular friend, Dr. Underhill, I had made up my mind that "cisterns in barn yards" meant rain-water cisterns for holding water for cattle; a place quite as worthy of notice as those for holding manure, and in fact much more so in many places. There are many fine farms, within my knowledge, where stock water, at all seasons, is extremely inconvenient. How strange it is, that the owners of such do not provide cisterns. It must be because they are not aware how cheap it can be done. Will you publish some plain directions, with quantity and cost of water and lime for a cistern to hold one hundred barrels? In most cases the mortar can be plastered directly upon the earthen walls of the vault, without building a brick wall.

American Agriculture.—These remarks upon the book of this title, lately published by Richard L. Allen, are just what might be expected from the good sense of the Editor of the Horticulturist.

New Self-Sharpening Plow.—Long before this I had come to the conclusion that all the ingenuity of those *cute* Yankees, Ruggles, Nourse & Mason, had been expended upon the numerous plows heretofore given to the public. But it seems from this "latest improvement" that there is "one more left." If they continue to make them equal to the sample now shown at your ware-rooms, nothing can exceed them in appearance. I am well satisfied that the improvement is a most valuable one. Speaking of plows reminds me that the editor of the Prairie Farmer, when he was here last year, promised to send you one of the much-bragged-of steel plows from Chicago. Has he done so? If he has I have never noticed it while rambling over your museum of agricultural curiosities which you exhibit gratis, and with apparent pleasure, to all who will take the trouble to call at 187 Water street; a place which I am always pleased to visit when I am down town, and have an hour to spare.

A Mowing Machine.—In a conversation with Mr. Hussey, at Baltimore, a few years ago, he told me that he had devoted a great deal of time and careful attention to this subject while perfecting his reaping machine, without ever being able to produce a machine that would be useful except upon very smooth meadows entirely free from stones, and even then, accidents would happen from meeting with one that had been carelessly thrown there. It was his opinion, and it is mine after much study upon the subject, that mowing machines will never come into universal use, because they cannot be made to cut close enough to the ground.

Water-Cress Cultivation.—This article I have read with very great interest. It strikes me that there are many places within striking distance of this city (New York), where plantations of this excellent and healthy vegetable could be made to produce great profits to the cultivator. It is a subject well worthy the attention of the Farmers' Club, or American Agricultural Association. I think I will bring it before them at their next meeting. I would also suggest that the American Institute offer one of their agricultural premiums for the best plantation.

The Land Sabbath, unless more profitably kept than the Christian Sabbath is by a large portion of this generation, had better never have been. The product would be a crop of very noxious weeds.

The Army-Worm.—Has your correspondent "M" ever seen the waste and ravages of an army of worms? I have. Some years ago I was travelling in the southern part of the State of Indiana, and my attention was first called to notice the "army-worm" by observing the blighted appearance of the vegetation on one side of the road, while on the other it looked green and beautiful. At first I did not notice the cause. But casting my eyes to the ground, I was alarmed to see the whole surface of the road apparently alive and moving from under my horse's feet. So completely did the army-worm cover the ground, that I could see nothing else, nor until I slackened my speed was I able to distinguish that the moving mass was composed of individuals all going the same way. I soon came to an opposing army of men and boys, horses, oxen, and plows. The commander of this force was cutting entrenchments and putting all his force at work to keep the invaders off his farm. To do this he plowed a deep continuous furrow around the exposed sides of his farm just inside of the fence, into which the worms tumbled and piled up until the furrow became so full that the invaders could pass over the mass of their comrades at the bottom of the ditch and reach the opposite bank. For they are unable to ascend the perpendicular side of the furrow of fresh earth. To prevent the furrow from getting full, a boy and horse were dragging a heavy log along in the furrow at short intervals, followed occasionally by the plow to clean out the filthy mass. And it was by such constant attention that one blade of grass could be saved from the jaws of this voracious army. Can human means, with all its "bonfires," destroy the larvæ of such an army?

Hints to Flax Growers.—Is there not a mistake in figures here? Mr. Parker states the price of Russian flax at six to twelve cents, and American at six to ten cents, while the whole tenor of the article seems intended to show that American flax is the lowest price of any in the world—and "is unable to compete with the worst country" in the culture of flax. Now I am of a different opinion. True, we cannot compete with the pauper labor of Europe, where the wages of the laborer are calculated at the lowest point above actual starvation; but with our cheap lands of the West which abound in excellent soil for flax, we can raise flax in the very rough way that we do, for six to ten cents a pound, as well as the English farmer can his with all its laborious preparation for market, and upon a soil where the annual rent of an acre would buy the fee simple of twenty acres in the West for the price stated. I have no doubt but flax would be found a much more profitable crop upon some of the Western prairies, distant from market, than is

the wheat crop, one year with another; for it must be remembered that in our mode of culture we save seed and lint from the same growth.

New Seedling Potatoes—Mr. Smith's interesting account of his experiments winds up, like too many communications, with "potatoes to sell." If he believes in "the degeneracy of the potatoe, and its liability to run out," and consequent necessity to obtain a new stock from seedlings, I don't. I would as soon believe that wheat was about to run out because it was struck with the rust for several successive years. I am always pleased to see experiments made to improve our old stock; but I cannot recommend the public to buy under the expectation of getting a new variety that will be proof against the all-pervading and mysterious potatoe disease.

The Corn or Fly Weevil.—Mr. Ruffin says most truly that "several insects very different in their appearance and habits are called 'weevil,' which serves to confuse the prevailing and erroneous opinions concerning them." It is a fact that the word "weevil" means just what the person having it has previously known as "my sort of weevil." In some parts of the United States the "Hessian fly" and nothing else is *the* weevil. Now this is an insect as entirely different from Mr. Ruffin's weevil as he is different from a ruffian. In other places the grain-worm, that has infested the wheat of New York, is called weevil, which is also very unlike the one now under observation. And I am not certain that Mr. Editor Allen and Mr. Ruffin are talking about the same insect. Although I have seen enough of the real Southern weevil to eat up corn sufficient to feed seven millions of starving Irish, I have never examined one of them closely enough to decide whether they are the same as the Angoumois moth that created so much excitement in France eighty or ninety years ago. If Mr. Ruffin can point out an effectual way to prevent the ravages of this dreadful pest, it will be of more value to the South and Southwestern states than all his previous valuable services to the agriculturists of that vast region.

To Revive Old Writing, reminds me to deprecate the use of all "blue ink." Although it *may sometimes* be good and durable for aught I know, yet in nine cases out of ten it is a fleeting show. As an example; a bond concerning the title to a piece of land was put into my hands to-day, for advice, which was written only two years since, that cannot now be deciphered. A short time since I was called into court as a witness, to prove what had once been written upon a paper that once had been a note made of modern "writing fluid." Unless people will desist from using the vile stuff, nothing in your columns will be more useful than recipes "to revive old writing."

"*Mr. Norton's Letters.*"—This gentleman's letters are always interesting. Pray, Mr. Allen, can you tell us the best method of making the small pipe tile, that Mr. Norton speaks of as superseding all others in the vicinity of London, and the expense of making and laying it in this country. [We could; but it would require a long written explanation and several cuts to illustrate it; and we doubt whether the subject is of sufficient interest to American farmers to compensate for so much expense and trouble we should necessarily be at in doing this].

Popular Errors.—Lest your correspondent has not heard of all the vagaries of the moon, I will tell him that I once had a neighbor who was sure that if he should lay the worm, or bottom rail of a new fence in the old of the moon, the whole would rot down and settle into the ground in half the time of one built in the new of the moon.

Mastodon Cotton, No. 1.—The number indicates that more is coming. I hope that after reading a long series it wont turn out to be like a great many other articles, a mere announcement of "a new and very superior kind of cotton-seed for sale. Price, $5 a bushel!"

Bees, No. 7.—Pray, friend Miner, what is the difference to me whether my bees freeze to death or starve to death, in consequence of getting so cold that they cannot eat? They do "winter kill," I know, and I would like to know how to prevent it. Perhaps if I give a more earnest attention to your articles, past and future, I shall yet be able to "live and learn."

Weather Predictions.—These six lines from the writings of M. Arago, will be read by every reader of the Agriculturist; and yet not one in a hundred, perhaps, will take the trouble to think who M. Arago is or was, or why he should think that all "weather predictions" belong to the family of "popular errors." It appears to me that the two words that head this article might be profitably employed for a text to a series of articles upon this subject. It certainly is one upon which the mind of the present generation needs much enlightening, and the "Almanac makers" as much correcting, as they do for planting cucumbers in the moon, or encouraging them to look to the Almanac to see whether or not "a storm may be expected somewhere about these days." All weather predictions should invariably be accompanied with that true and never failing old saw: "*All signs fail in a dry time.*"

Letters from the South, No. 3.—If it had been three times as long, it would have been three times more interesting. Who ever tires in reading a fluent well told description of a section of country that they never saw, and perhaps feel deeply interested in? Is it a fact that rice is the most profitable crop in the United States? If so, why is not the cultivation extended to the North? It is not an exclusively southern crop. I have seen it grow finely as far north as Lat. 40°; and the wild rice of the Northern Lakes grows most luxuriantly I know some 5 or 6 degrees further north. Friend R. L. A. is not quite right in regard to what cattle fatten upon in the cane-brakes. Those "evergreen leaves" possess just about as much "palatable nutritiveness," as the grass in your father's old bog-meadows did after a frost, or an equal quantity of shavings from hickory hoop-poles. The small cane is not the young cane, nor does the old cane put forth young shoots; but in all cane-brakes there are constantly springing up from the ground new stalks, which are without leaves and branches for the first year, and are as soft and tender as half-grown corn-stalks, and as much loved by cattle, and equally nutritious. This is called "mutton-cane." This is what bears live upon, and for which they resort to the cane-brakes. It runs up 15 or 20 feet high in one season, and obtains al nost full size before it becomes

the hard hollow tube we find it as used for fish-poles. After it is three years old, there is less change in its growth or appearance for 30 or 40 years than any other *grass* that I know of. Whenever it seeds, it dies. In 1832, if my memory serves me, there was an universal seeding of corn on the Mississippi. The seed is something like oats in looks and nutriment. "When cane-brakes are abundant cattle will fatten:" but the "range" must be very large, or it will soon "run out;" for this gigantic grass is soon destroyed by the inroads of civilization. Tennessee, Kentucky, Southern Illinois, and Indiana, were once covered with cane, which is now rarely seen in all that vast region.

But some of *those taverns* are not so rare!

To Render Paper Incombustible.—I wish some of our political papers would try it, instead of so much "villanous saltpetre."

More Facts about Pork and Bacon.—Friend Solon has given us some very plain, straight-forward directions how to do up the thing in real Hoozier style: and "Down East folks" must indeed be "hard to understand," if they need to ask any more questions. As for that bacon which he brags so much about, if he will send "a sample" to the New York Farmers' Club, and they will let me know when the "Hoozier Ham" is on the table, it shall be properly tested and reported upon. It certainly is a very cheap and easy way of salting pork if it will do. The "cotton bag" mentioned, I presume, is to be made of cotton sheeting, and not of "cotton bagging." I see the Editor of the Farmers' Cabinet recommends the same. Let's try it. [If Mr. Robinson will be so good as to reply to Reviewer's hint with a fine large ham, we will see it properly cooked and set before the Farmers' Club.]

A New Way of Fattening Hogs.—I can improve upon this "six feet square." It is to confine each hog in a narrow stall where he can never turn round from the time he is put up to fatten till killed. The stall should be about ten feet long and two wide—the trough at one end and door at the other. A wide plank is to be made to fit in grooves at each end, which being put in, the one which makes the stall the narrowest at first, is moved out as the porker grows and needs more side-room. If he belongs to a *respectable* family of hogs, he will back up to the door every time occasion requires, to deposit his offal, which should be cleaned out daily, and at other times he will lie and sleep upon the clean floor, with his nose close to the trough, with nothing to disturb him in his solitary confinement. The floor should pitch from the trough, and all roofed in. Any number of these stalls can be arranged "all in a row." There is no more need of a hog turning round in his stall than there is for a horse to do so. It is only the fashion. [We enter our caveat against this close confinement of fattening animals—the meat of such is not near so healthy and nourishing Give us the meat of an animal that takes exercise. Think of the deer and his luscious venison, and retract your error, Mr. Reviewer.]

Ladies' Department.—Here I catch it. What have I done? I had thought myself so much of a "ladies' man," that I should always be a favorite in this department. But it seems that I have trodden on somebody's corns—and she calls me "a crusty old codger," and "a stiff old bachelor." Only think of that, my dear wife and pretty daughters—seven all told, besides six stout sons—a baker's dozen altogether. "Sisters," it is true I have none, but God bless you, my dear "E. S.," I have some of the sweetest cousins in the world, and this you would acknowledge *every time you looked in the glass*, if you knew who I am. But I must look up my file of the Agriculturist and see what it is that I have said, whereby I have offended—for I am such a careless, good natured old fellow that I have quite forgotten. Well, after all, it is not so very bad. True I said "some folks painted and spun street yarn," &c., but I did not say "E. S. used too many words:" that's poz. And so she is in the wrong for once—that's some comfort. And I did not try to *laugh* her out of her "fancy." I was *crying* instead over the folly and wickedness of modern fashionable education. And as for "E. S." being "discursive," I won't say a word. As for her determining not to read any more of the critiques of Reviewer, it is no use. She will do it. Can't help it. For she has often before had the indulgence of that big laugh over some of my writings (under another name), and will again. Thank you, my dear E. S., for that last wish. When shall I call?

Musical Bells for Cows, and musical belles for dairy maids, would give us that good old tune of butter and cheese, in its sweetest tones. I like this French notion; for, notwithstanding my objection to "piano-*thumping*," I love *music* Pray Mr. Allen, get up some of these cow-bells for your warehouse. They certainly will be preferable to some of the unearthly sounding ones that we sometimes hear "over the hills and far away."

Boys' Department.—This little article and plain table about the difference of value between great and small apples, is worth more than you charge for a whole volume of the Agriculturist, to every man, woman, and child, that reads it. I pray you, reader, turn back and peruse it again. It is valuable. That plate is too foggy to convey any clear idea to the mind of a child. Seen by itself I never could have told what it was intended to represent. Pictures, unless made clear and expressive, do not serve to elucidate the subject, but rather to confuse. There is great fault in this respect in children's books. They often get very false notions of the appearance of an animal from a badly executed picture.

Foreign News.—I am glad to see that at the Smithfield show there was a great increase of fat cattle, and that Prince Albert and other noblemen are large breeders. How noble it will be of these men, when they send over these fat cattle to Ireland and make them all up into rich nourishing soup to save their poor brethren from the horrors of starvation. I am afraid, however, that some of these large English cattle breeders are not aware that these poor Irish could live on beef without potatoes.

Beet Root as a Substitute for Flour, is another expedient of the times to see how cheap the poor laborer can be kept alive, without trenching too close upon the starvation point. There is something revolting and horribly wrong in the fact that a few comparatively, of the whole population of Europe, are the owners of all the soil, and riot in luxurious wealth, while the great mass are half starved upon "beet-root bread" and potatoes, in

the best of seasons; and in case of loss of crop, as is the case this year, are doomed to the most horrible of all deaths for the unpardonable crime of having been born in poverty. And yet these very "Lords and gentlemen," not satisfied with this wretched condition of their own laborers, cry out for the vengeance of Heaven on us, because we have in this country a class of laborers, who as mere laborers, and taken as a whole, are the best fed, best clothed, best housed, lightest worked, and best provided for in sickness, of any class of laborers on earth; but then they are called *slaves!!!* And that word goes up into the nostrils of European aristocracy so strong, that they cannot snuff up the dying groans of their own famine stricken, starving, dying laborers. Vengeance cannot sleep for ever. And the time is fast coming when these down-trodden millions will feed their tyrant oppressors with large doses of the first dish of the Editor's table for this month. For this discovery in the art of manufacturing a substitute for gunpowder, will place destructive power ere long in many hands that never possessed it before.

And here with a dish of gun-cotton before your readers, I will close my review of this month. I hope none of them will feel disposed for anything that I have said, to apply the match, while I take a *snooze*, and blow up your, REVIEWER.

MANAGEMENT OF HONEY-BEES.—No. 10.

Symptoms of Swarming.—The symptoms of swarming, to a certainty, can never be defined. Some have pretended to define the signs, by "royal piping," &c., but it is sufficient to know that there is an excess of bees in the hive, enough to equal an ordinary swarm, to know that a swarm may be expected; but the hive in all cases must be densely crowded, before we need look for swarms. In hot sultry days, from 10 to 4 o'clock, is the usual time for issuing. As "a watched pot never boils," so a watched bee-hive never swarms. I once watched my hives, on a day that I felt morally sure that swarms would come off, and about 5 o'clock P. M. a few minutes after I had given them up for the day the cry of "*bees swarming*" came upon my ears. They rushed out like a tornado, and clustered upon a grape vine within ten feet of the hive. We may look for swarms after a storm when the sun is powerful, and the wind low. As I said before, the old queen always goes off with the *first* swarm. This is a provision of nature that calls for our admiration. The old queen is capable of *immediately* commencing laying the eggs for the young brood, whereas the young princesses await impregnation from the drones, which delays breeding for a short time. The *first* swarm with the *old* queen is placed entirely out of danger, as far as regards their future safety, from the want of sufficient numbers, for their general prosperity; while the second and third swarms are always in a precarious condition, from losing a portion of the best of the honey-harvest, and by the time their queen is fairly at work, in bringing forward a young brood, the season is so far gone, that nothing can be gathered by them when mature. This, then, is a provision of nature to *ensure* a perpetuity of their species.

The *best* thing for bees to cluster upon, and which is a particular favorite with them, is a *grape-vine.* I have a very large one a few feet from my hives, and three out of four swarms cluster upon it. There should be plenty of small trees and shrubbery around every apiary. Peach-trees are very good. Where there are not sufficient small trees for them to cluster upon, there is great danger of losing the bees. The trees should be placed rather more to the north, south, and east, than to the west of hives, and some rods distant if convenient; as the bees move slowly with the wind generally, till they find a clustering place, unless there is a favorite vine near the hive, and the wind is seldom east when they swarm, as that denotes unsettled weather.

Every person keeping bees should be fully prepared on the arrival of the swarming season, with everything ready and in order. His hives should be clean, and placed where they can be used at a moment's notice. I rub a little honey on the inside of my hives a day or two before I use them, but nothing else, and I am not sure but good new hives are just as well without anything. I have hived both ways, and lost none in either case. The next thing wanted at hand is a common pine table, or any one suited to be knocked about under trees. An old blanket to spread over it is also wanted, and a few pieces of wood, say an inch thick, to rest the hive on. Then a good wing or long window-brush should be among the articles. Lastly, a bee-dress is necessary, unless you are *unstingable.* The best dress that I know of, to be prepared easily, is a cap made of musketoe-netting to cover the entire head and neck, and a piece of isinglass sewed in front to look through. With this over my head and a handkerchief tied over it around my neck, coat buttoned up to the chin, and a pair of long woollen gloves on, I care as little about the danger, as I would if they were so many flies.

There are some bees that never sting, or appear to have little or no spirit of defence, but they are your half-starved sickly things; *patented* out of life and vigor. Give me your furious dashing bees, that will strike around your ears, like the pelting of hail in a tempest, when one invades their domicils, and it is a sure guarantee of success.

In swarming have nothing to do with bells and tin pans. All the ringing and jingling in the world would never keep a swarm from going off, if it intended to go. If you have suitable shrubbery around the hives, you have nothing to fear. They *will* cluster unless driven by the wind beyond the range of trees; then there is danger. When clustered, take your table and set directly under the bees, spread your cloth, bring out your hive, put it at one end of the table, put the blocks under the side *towards the bees*, raise it one inch, shake the bees off to fall directly in front of the hive, and they will run in rapidly. Continue shaking or brushing off the bees till they all settle around the hive. When the cluster is high and difficult to get at, the branch may be sawed off, and then dislodge the bees on the table. They will run several feet to a hive without rising on the wing, and if a part only fall near the hive, those in the air will settle down with them. I have placed a table 6 or 10 feet below the swarm, and then placed a loose blanket or large bag under my ordinary blanket in order to save the fall, and succeeded very well. The most quiet

hiving is the best, and when brushing the bees off is resorted to, where they cannot be dislodged in any other way it should be done in a careful manner lest the queen should be injured. The time that bees remain in the cluster before departing, when not hived, is difficult to determine. I have always hived mine in the course of half an hour after clustering, except two swarms that came off late last season at 10 o'clock, A. M., when I was absent from home, and there was no person on the premises to attend to them. They remained quietly till 2 P. M., when a violent thunder-shower came up, the wind blowing a gale which lasted till 4 o'clock; I then came home and found them safe; not a bee had been lost from the cluster as far as I could see. From this it appears that there is no need of great haste in hiving. The bees when hived, should be protected from the sun when very hot, so they cannot suffer as much exposure to heat at such a time as when the hive is filled with comb. A bag or blanket thrown over the hive will answer the purpose. Speaking of the time that bees remain in the cluster—there are many instances in which they have commenced comb-building upon the bough clustered upon, and have remained and perished upon the spot; and I presume that half the swarms that issue would do the same, if left to themselves.

As soon as the bees are quietly hived, many of the workers will immediately sally out to the fields and return laden with honey, or materials for comb-building. Should there be no going forth and returning, you may depend upon something being wrong. Either the queen has been lost in hiving, or the bees meditate a removal.

Artificial Swarming.—The philosophy of this, as already stated, lies in the power of the bees to create a queen at pleasure from the young brood This is a highly important discovery; by it we are enabled to counteract the effects of a lack of young sovereigns to issue with swarms. There are two modes of artificial swarming; one by *division* the other by *separation*. The method of dividing is by constructing hives in two equal parts, to come together perpendicularly, and fasten with hooks. These hives must be made very exact, in order to have the different parts all fit each other. To illustrate this matter, we will take a couple of halves and fit them together, and hive a swarm in it; but before this is done, something should be done to cause the bees to construct their combs the same way that the hive divides, and this can be effected by attaching a small piece of comb to the top of the hive, inside, running as you desire it. A little bees-wax melted and traced along as you desire the comb to run, will be followed by the bees. The reason of having the comb run from front to back, is, that in separating the two parts, the combs would have to be cut, if they run transversely, which could not be easily done. A very thin partition should be placed at the top, middle, and bottom of one-half only, say two inches wide. This will prevent the bees from working a comb directly upon the dividing line, and when the halves are separated, they will open between the combs without injury. Well, we have a hive on this plan, wintered over, and ready to swarm, or at least, have bees enough to throw off one, and perhaps they are prevented, from one of the causes before stated. Without artificial means, this stock will remain the entire season, with half a peck of idle bees clustering upon its sides, that neither work nor let others work, by stopping up the passage. We now take the hive apart quickly, and to each half attach a corresponding empty half, and let the two hives stand as near the position of the original one as possible, by moving one to the right just as far as the other is removed to the left, and stand about a foot asunder. In the course of 24 hours, we can generally ascertain in which the queen is, from the bees gathering more to one hive than to the other, and this seen, we will remove that hive in which the queen is to a new location, and then place the other in the precise location of the hive before dividing. We shall now have two good swarms, each better than the old stock, encumbered as it was with a useless mass of bees, that could not labor for want of room.

Another method, is, to cut a piece of comb from any hive that we can the most readily get at. If we have no division-hives we must turn up a hive and cut it out from below. I have a hive that admits the side to be taken off. I never could wade through the solid masses of bees in my hives to get comb from the bottom. This is a job that must not be done by a novice in such things, where the stocks are so powerful as mine are. Having cut out a piece 2 inches square, or more, containing the young brood, I take a hive and attach it therein, the same distance from the side as the bees construct their combs. I melt a few ounces of bees-wax in a shallow vessel, and while warm, I dip the comb into it (having first smoothed and squared the edges on a hot smoothing-iron), and then as quickly as possible, apply it to its location, and I soon fasten it as firmly as if built there by the bees. My next operation is to remove such a hive, as I wish to take my swarm from, to a new location, and place my hive with the piece of comb in its place. This operation should be in a fair day, about 11 o'clock, A. M. The bees on returning home go directly to the hive, and find to their surprise an empty one in the place of the one they left full. Their old hive they cannot find if removed 10 feet, and by evening we have a good-sized swarm that are compelled to take quarters in the new hive. The second and third days after the removal will continue to add to the empty hive, and the bees, finding the material to make a queen from, cluster around the comb, and in a short time they are in as good condition as if they had swarmed by natural means. The old hive is released from a useless hindrance to their labors, and both thrive well. Here we have the necessity of placing the hives so as to be easily removed from one location to another.

It appears that the new queen can only be produced from grubs of a certain age, and if we happen to get none of the right kind, we shall have a failure; but in three cases out of four, we shall succeed, unless a storm should arise soon after performing the operation, which would prevent the bees from going abroad, and consequently the new hive would not receive sufficient bees to keep the young brood warm, and a failure must ensue, as the bees would not stay an hour after their hopes are blasted in this way.

T. B. MINER

Ravenswood, L. I., May, 1847.

LETTERS FROM THE SOUTH.—No. 9.

ATTAKAPAS, pronounced Tuck-a-paw, is a county comprising four parishes of Louisiana, bordering Bayou Teche and some of the smaller navigable streams and lakes of this part of the state. It is beyond all question the finest sugar region of this country; for while the soil is equal to any other, most of it now under cultivation is so elevated as to be entirely independent of the necessity for embankments on the river, and its security from frosts renders the cane a much more certain crop here than in any other section of the state.

The usual course in reaching it, is by ascending the Mississippi, 110 miles to Bayou Plaquemine. This is entered on the right bank of the river by an outlet so much choked up by logs and drift as not to exceed 70 or 80 feet in width, though within, it is some 200 to 300 feet wide. It is only 10 miles long, and at its lower extremity debouches into the Atchafalaya, pronounced Chaf-a-lay-a. It is entirely dry at the ebb of the river, but at high water it rushes with fearful impetuosity through its brief but headlong course, nearly reaching tide-water in 12 miles, which the Mississippi runs 200 miles to meet.

The river into which it empties, Atchafalaya (Chaf-a-lay-a), has an outlet from the Mississippi more than 100 miles higher up, and another from the Red River long before it mingles its waters with the parent stream. In our course, we passed through numerous small lakes; Grand lake, 30 miles long by 8 wide; and innumerable subdivisions of these ever-varying water courses, that hold divided empire with the land in this amphibious region.

Much of the country through which we passed, is too low for profitable cultivation, without the construction of embankments on all sides, and the use of the draining wheel; but wherever the elevation permits, clearings have been commenced, and the cane is rearing its luxuriant head where the cypress, the live oak, and other forest-trees have hitherto held universal sway.

Berwick's Bay is a beautiful expansion of water of a few miles in length, and here is the first instance in the delta of the Mississippi, that I found the land permanently elevated above the surrounding water. It is from 5 to 8 feet above the water on this bay, and Bayou Bœuf, which is probably the most beautiful of the lower bayous. It is some 10 miles long, 400 feet wide, with straight or gently varying banks, beautifully dotted, or sometimes closely lined with the live oak. Here, indeed, is the great live oak region of the South, and it is here and on the Teche, the Vermillion, and near the Gulf coast, that immense quantities have been taken within a few years for our Navy and merchantmen. The late Judge Porter asserts, that there is here enough oak to sustain a fleet for the world; but the recent encroachments on this fine timber have conclusively shown that no treasury is exhaustless, that is sufficiently rich to tempt American cupidity.

From the lower extremity of our cruise, which led us within a few miles of the Gulf, we returned through Atchafalaya, 10 miles, thence into the Teche, which we ascended 20 miles to this place. This stream is still unlike any other before coming under my notice here. It is about 300 feet wide, and the banks gently ascend from the water's edge for some 30 or 40 rods, when they attain the highest elevation, some 25 feet above the water. They again almost insensibly decline from this ridge, till they reach the low banks of the Grand Lake and other adjoining waters from the left side, and the tide-water marshes of the Vermillion, Côte Blanche, and other bays on the right. The formation of these banks, differing so much from any other part of the delta, induces me to believe that the whole space between the ridges or highest point of these banks, once constituted an immense, and perhaps a *main* outlet of the Mississippi, from which, the waters overrunning their brims, gradually filled up the wide and fertile banks that are now the object of cultivation. The gradual working of the main stream to the eastward, led the principal channel in another direction, while the former occasional outbreaks or overflows of the Red River have since filled up the channel and sloped down the banks with that peculiar red earth, from which the river derives its name.

There are numerous fine plantations on both sides of the bayou, and nowhere in the state is it believed that more skill has directed, or greater success has attended the culture of the cane than here. This country, though comparatively new, produced in 1846, 37,144 hhds. of sugar of 1000 lbs. each.

The mode of planting is nearly the same here as elsewhere; yet great diversity everywhere prevails in its cultivation. Planters are often varying their own systems. From the close-row planting of former times, within 3 or 4 feet, some have gone to an opposite extreme of 10, 12, and even 15 feet. Between these extreme widths, corn is planted and gathered early, when the tall cane-stalks fall towards each other and form a spacious arch for the free admission of sun and air. But in general, the distance of 6 to 8 feet is observed, with 3 or 4 parallel seed-stalks in each row.

The prairies which extend over a large portion of Southwestern Louisiana, show themselves in scattered patches on the lower parts of the Teche, and though luxuriant sugar-lands, they are said to produce abundantly from plant-cane only. Many of the planters assure me, that through much of this region, those best study their interests who annually renew the plant over their entire fields. This is a large deduction from the available product, as it requires for replanting about one-sixth of the crop besides the labor.

The question of future seed is already exciting some attention; for while some contend that there is no deterioration in the cane, others affirm it, and confidently look forward to the time when they must renew the plant by fresh importations from abroad, and if possible from recent seedlings. A few enterprising planters have introduced some new specimens from Jamaica and other islands, among which may be mentioned the ———— and the red-cane cultivated here to some extent. But hitherto the ribbon has maintained its decided superiority over all others. Besides the probable future destruction of the plant, the history of all agriculture teaches us to expect, that disease or insect-enemies may hereafter make serious inroads upon a crop, that unabatedly and without scarcely any

rest or change usurps so large an area; and these are conditions which should have their full weight with intelligent minds, in inducing that close watchfulness and observation, which will lead to the earliest detection of enemies to a crop, on which millions are annually staked, and which contributes so essentially to the luxury, comfort, and healthfulness of the human family.

Besides calling on Mr. Wilson, the intelligent editor of the Planter's Banner, my limited time only permitted my visit to one plantation. This is situated 6 miles above this place, and belongs to James Porter, Esq., who inherited it from his brother, the late Judge P., formerly U. S. Senator. The estate is large, and laid out with much taste, and still retains all the venerable live oaks which have given to it the appropriate name of Oak Lawn. A large and tasteful mansion occupies the highest elevation, while in front, the ground descending to the bayou is studded with various specimens of trees and statuary. A large cistern enclosed with brick and cement, and encased with lattice-work fringed with the multiflora rose to shield it from the sun, receiving the water from the eaves in winter, and being shut off in summer, leaves the reservoir at the lowest temperature possible in this climate. But I find that even here ice is regularly brought by the steamboats from New Orleans, a distance of nearly 300 miles by the route taken. Thus the Yankees, with their accustomed shrewdness, are indirectly driving a brisk trade in exchanging the congelations of the wintry north for the crystallizations of the sunny south. A brick dairy-room ensconced beneath the dense foliage of several large drooping oaks, and as perfectly barricaded against the admission of heat as possible, was filled with numerous vessels of *Ayrshire* milk, cream, and butter; and a large ornamental and vegetable garden closely adjoining, furnishes all that is essential to gratify the tastes and senses.

Mr. Porter and his late brother have exhibited a taste in their selections of stock, seldom manifested among Louisiana planters. Each has imported the Short-Horn, Devon, and Ayrshire Cattle; the latter especially in large numbers, and directly from Scotland. The substitution of the best milking Devons, while affording an equal value in milk, would furnish some of the choicest working animals in the world.

There was a large flock of Southdowns, derived from direct importations, and a better lot of wethers I have never met than are grazing on the premises. Mr. Porter's taste has also led him to the importation and breeding of some of the best English blood horses. Among these, Harkforward is conspicuous, a full brother of Harkaway, so distinguished on the English turf, 16½ hands high and every way well formed. From him he has been breeding for three years, and several of his thorough bred colts which I saw there, now two years old, already stand over 15 hands high.

I observed here that manufacturing, among the supernumerary hands, was an object of attention. Both wool and cotton, the products of the plantations, are here prepared, carded, spun, and woven into substantial fabrics for domestic use. I saw here the most comprehensive yet simple little cotton machine that has yet been constructed, consisting of a compact frame some 4 or 5 feet long by 1½ wide, with half a dozen spindles at one end and a miniature gin at the other. It is easily put in motion with a crank, even by a child; and being supplied with the cotton as gathered in the field, it is ginned, cleaned, carded, and spun at one operation.

One improvement has been here successfully carried out which I have never seen practised elsewhere. It consists of two immense sheds connected with the grinding-house by a railway elevated as high as the eaves of the buildings, on which cars are placed containing the bagasse as received from the rollers, and run into the sheds where it is tipped out and allowed to dry. It thus furnishes at least two-thirds of the fuel used for granulating the cane-juice. Franklin is the seat of justice for the Parish of St. Mary, and is a port of entry. Large numbers of vessels of light draught annually come to this bayou and load with sugar and molasses for the north, bringing manufactured articles, provisions, coal, and other supplies in exchange.

Thoughout the southern part of the county, sugar constitutes almost the entire product; but in the north, through the parishes of Lafayette, Vermillion, and the northern half of St. Martin's, cotton, corn, and cattle are considerable articles of export. Opelousas, still further to the northwest, grazes innumerable herds of cattle on her immense prairies; some have herds of more than 5000. The cattle there, like those in California and the pampas of South America, glean their own subsistence exclusively from the natural herbage of the fields. In seasons of severity, great mortality among the herd occurs. During the last winter, from deficiency of food and inclemency of the weather, one herdsman alone lost 500 head—more than half his whole number.

There are some peculiar features in this region, not before adverted to. The bottom of Lake Chicot, a small sheet of water near Grand Lake, and through which we passed, has apparently subsided; and the trunks of large cypress and other trees that only grow on firm land, which is mostly dry throughout the year, are to be found here in great numbers, with their roots many feet beneath the lowest water mark. They are still erect, though decaying and rapidly crumbling down. Perry Lake, in Caddo parish and some others, afford similar examples.

Spanish Lake near Newtown, in St. Martin's, some 30 miles in a northerly direction from this place, containing about three square miles of surface, is overgrown with thick moss and other compact vegetation to the depth of a foot or more for one-third of its area. Most of this may be travelled over in safety; and sportsmen frequently cut through the surface and catch all the varieties of fish to be found in those waters, apparently excavating them like ore.

Four large mounds intermixed with large quantities of skulls formerly occupied the right bank of Berwick's Bay. They were regularly placed at the cardinal points, and one still maintains an elevation 30 feet above the surrounding level, and has become the burial ground for the proprietor's family. Skeletons, specimens of rude pottery, and other remains of a former race, long since passed into oblivion, are said to be found here. R. L. ALLEN.

Franklin, La., May 26, 1847.

DESIGN FOR A FARM-HOUSE.

I REGRET very much that the whole plan of my Farm-House was not given in the June number of the Agriculturist. The basement story is entirely omitted. This is a very convenient part of a farm-dwelling, and I consider it, as I suppose all practical housewives do, of primary importance. As I had given some explanation respecting its construction, the reader would very naturally suppose I had stupidly forgotten it in the design.(*a*)

It contained, besides an undivided cellar in front (of 20 by 30 feet), a spacious light and airy kitchen, opening into the wood-house, a large store-room at the foot of the stairs, closet, oven, arch, and cistern, a hot-air chamber, storage-room for wood and ashes, sink, and drain.

The sink, instead of being in the upper kitchen or dining-room, where there was only sufficient space for a door, was in the basement directly beneath, with a conductor for bringing water from the cistern. If a sink should be needed in the upper kitchen, the place for it would be over the drain, given in the design.

A door between the sitting-room and library is also omitted, which would be very important, if this room was used either as a library or part of the hall. MRS. JAMES M. ELLIS.

Onondaga Hill, June 14th, 1847.

(*a*) We much regret these omissions, but the fault does not rest with us, as we copied verbatim from the Transactions of the State Agricultural Society.

HOW TO PRESERVE GREEN CURRANTS AND GOOSEBERRIES FRESH.—M. S. Wilson, of Lenox, Mass., it is stated, preserves green currants in dry glass bottles, corked and sealed tight, placing them in a cool cellar. In this manner, they may be preserved for a great length of time, so that you may be able to have pies on your table at all seasons of the year. Gooseberries may be preserved in the same way.

CHOICE OF TREES AND SHRUBS FOR CITIES AND RURAL TOWNS.

IN ornamenting cities, villages, or rural towns, as well as public highways, farms, private grounds, &c., it is a great desideratum to find a class of trees and shrubs that will rapidly attain the desired form and size, afford a healthful and agreeable shade, and are free from the attacks of insects or from accidents of any kind, and at the same time will tend to beautify the scenery, and ultimately prove useful for fuel or construction in the arts. With the great variety of species and varieties before us, whether in a wild state or under cultivation, one might be led to suppose it an easy matter to select from among them, all that could be desired; yet, when we take all their points or qualities into account, how few there are free from objection. One class seemingly answer the desired end for the first ten or fifteen years, and then, by exuberance of growth, become too much expanded for the situations they occupy, and unless their beauty is destroyed by pruning, they grow top-heavy, and are finally uprooted or shattered by the winds; other kinds appear to flourish with vigor during the first few years, assuming a variety of graceful and picturesque forms, and then are checked in their growth, become sickly, or stag-headed, and unsightly to the eye; while a third class, although they may possess satisfactory qualities in most other respects, are attacked by noxious and disgusting insects during certain seasons of the year, and are often greatly injured thereby, if not totally destroyed. Hence the difficulties our early tree-planters labored under, who groped along in the dark, in many instances, and we need not be surprised, nor should we attach any blame to their praiseworthy efforts, even if they have not been the most choice in their selections, and the most judicious in their management.

Without entering in detail into the monotony of that large "sylvan park," the Boston Common, with a variety of soil and surface that would admit of one of the finest arboretums in the world, or to dwell upon the seventeen other "cities of elms," in other parts of New England, or upon the long, formal rows of exotics in our national metropolis, where, before all other places, we might be led to expect a conspicuous display of indigenous trees, I will pass to Brooklyn and New York. These two cities probably contain a greater number of species of cultivated trees, native and foreign, than is occupied by the same extent of ground in any part of the Union. Hence it may be inferred, that in planting streets, out of so large a number of trees, an injudicious choice, in many cases, would be made, which would unavoidably be attended with consequent evils. The trees of this description, which most predominate, are the weeping willow, the button-wood (sycamore), the European linden, the American and European elms, the silver-leaved maple, the catalpa, the three-thorned gleditschia, the tulip-tree (whitewood), the horse-chesnut, the paper-mulberry, and the abele. None of these trees, nor any others of equal dimensions, should ever be suffered to attain one-half of their maximum size, within fifty feet of any human dwelling, either in country or town. These trees, to be sure, when young, like striplings, shoot into graceful forms, with a lightness and an airiness about them, that is pleasing; but when they expand into their natural proportions, and attain their full growth, they become too large for the situations they were intended to occupy, and by the fullness of their foliage, often produce an unhealthy shade. For we have every reason to believe that many residences, which naturally would have been salubrious under other circumstances, are rendered damp, gloomy, and unhealthy, during certain periods of the year, by the superabundance of trees and shrubbery, growing in their immediate proximity; and besides, when thus planted, the leaves of several of the afore-named trees, serve as the food of myriads of millions of insects, or their larvæ, which so often infest the rooms of our houses, and annoy passengers in the streets. What I have stated above is plainly illustrated in Fig. 44, next page, by the two largest trees, the like of which repeatedly occur in Brooklyn, and even instances might be cited where entire blocks of houses are dampened, darkened, and overshadowed by tall forest-trees, which are liable at any season to be uprooted, or shattered into fragments by the violence of the wind. The pruning of these trees, in many cases, has been entirely neglected, while in others the operation has been carried too far. It has not un-

frequently happened, that, when the tops of the trees became sufficiently expanded to darken the houses, or intercept the view, in order to remedy the evil, the whole of the lower branches have been cut away, leaving the upper ones to form an unnatural and often illshapen head.

The streets of the cities and larger towns of this State, seldom exceed three or four rods in width, and consequently will not admit of the growth of trees much more than fifteen or twenty feet in height, without more or less injury, or inconvenience, to the neighboring habitations. In several cities of Europe, the planting of trees and shrubs in streets is regulated by law, and in some cases, it

FIG. 44.

is required that they be of such a character as will not reach above the lower parts of the windows of the second stories, as denoted on the right-hand side of fig. 44. The trees and shrubs that would answer such a purpose in the cities of New York, with judicious pruning and lopping, are the red-flowered maple, the sugar-maple, the American white beech, the American red beech, the Osage orange, the June berry, and the flowery dog-wood. The latter, or some allied species, will flourish in any part of the United States, and can be removed, if taken up with care, of almost any size, at which it will grow. In order to effect this, it is only necessary to take up a ball, or mass of earth, adhering to the roots, and plant the tree at the same depth in the ground, and with the same side of the trunk towards the south, as it originally grew in the nursery, or in the woods.

In selecting any of the above-named trees, it would be advisable to obtain those grown in nurseries in the immediate vicinity of the sites where they are intended to remain; and such as grow naturally to the greatest perfection in the neighboring forests should be preferred, where the soil and climate are essentially the same.

A few words on the parks and public squares, in Brooklyn and New York, seem to demand a notice, as not a single species of oak, beech, birch, American ash, walnut, negundo, dog-wood, holly, and numerous other native trees and shrubs, is to be found in one of them. In general, they are planted with the same kind of trees as the streets of these cities, with but little regard to the grouping of them into pleasing and picturesque assemblages, and the selection is often bad, the trees in some cases being totally unfitted to the soil in which they grow. For instance, the frequent occurrence of the weeping willow, on the Battery, where, for reasons already stated, they are annually uprooted by tempestuous winds. All of the parks, as well as pleasure-grounds throughout this State, doubtless would admit of the successful cultivation of at least one hundred kinds of trees, which if tastefully grouped and contrasted, would lead to a point of human refinement unsurpassed by any collection in the country, even Washington square, in Philadelphia, with its groups of beautiful bur-oaks (*Quercus macrocarpa*), pin-oaks (*Quercus palustris*), catalpas, silver-leaved maples, negundos, Kentucky coffee-trees, liriodendrons, and a host of other trees, from two to three yards in girth.

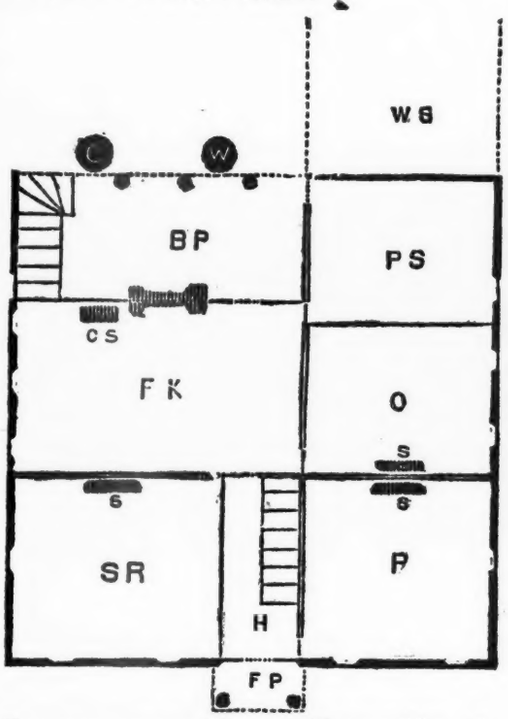
It is much to be regretted, that the plan proposed some twenty years since by the late M. Parmentier, of Brooklyn, for planting the Park, in New York, was not adopted, and every species of American tree, that could possibly be made to grow, placed there; the magnificence of which could only be equalled by a grand national arboretum, in the city of Washington, where almost every native tree would live. But this we cannot reasonably expect to be done; for, in the progress of civilization in all countries, there are many much more important things to be considered than the culture of trees and shrubs.—[Condensed from the Transactions of the N. Y. State Agricultural Society, for 1846.]

A CHEAP FARM-HOUSE.

BEING laid up in ordinary during some of the cold weather of this month (January, 1847), I have devoted a portion of the time to contriving another plan of a cheap *Farm-House*. I send you a ground plan and elevations of two fronts, which I hope you may consider sufficiently interesting to present to your readers.

My object has been to present another plan that the poor man can follow; building a part at a time and always having a perfect house, whether completed upon the entire plan or only a part of it. This I conceive to be the greatest object—at least for that class of your readers who are unable to purchase expensive works and pay a skilful architect for a drawing. The entire ground-plan of this house is 40 ft. square; and for one who can afford it and needs the upper rooms, I think it a good one

to build the superstructure the full size. You will observe that the kitchen is a real *farmers' kitchen*. There is a space for the "long table" with a bench next the partition of the sitting-room. The back porch in summer will make a pleasant eating-room, unless indeed the "gude wife" prefers to move her cooking-stove out there in warm weather. The back stairs will be found convenient, but may be dispensed with. So may the door in the south front, which opens into the porch under the stairs. But it adds to the looks outside.

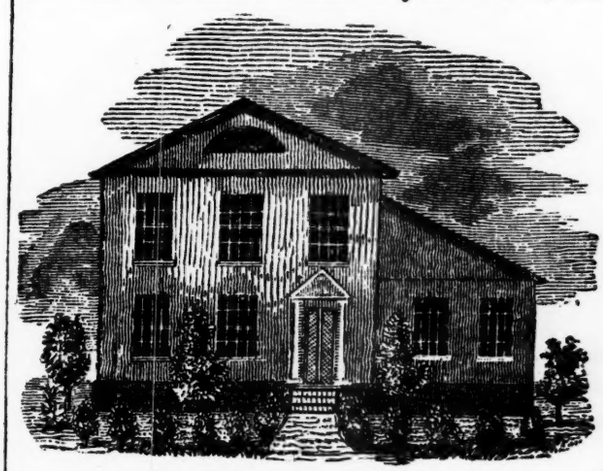


EXPLANATION OF GROUND PLAN.—FIG. 45.

F. K.	Farmers' Kitchen,	15 by 25 feet.
S. R.	Sitting-Room,	15 by 17 "
H.	Hall and Front Stairway,	8 by 15 "
P.	Parlor,	15 by 15 "
O.	Old Folks' Bedroom,	12 by 15 "
P. S.	Pantry and Store-Room,	13 by 15 "
W. S.	Woodshed,	15 by 20 "
F. P.	Front Porch,	5 by 8 "
B. P.	Back Porch and Stairway,	10 by 25 "
S.	Stoves.	C. Cistern.
C. S.	Kitchen Stove.	W. Well.

The fire-place in the back porch will be found useful. The space between the columns of the porch may be closed up in winter if desired. The pantry I have made of a liberal size, as it is usually the most crowded room in the house; while the parlor, which is the least used, does not require to be large. There is room for a closet under the front stairs, opening to the kitchen, unless required for cellar stairs. Another shallow one may be made in the wall between the kitchen and bedroom. The stove-pipe from the sitting-room is designed to cross the kitchen, or go up through the chambers and so into the chimney. As the chamber is 25 by 30 feet, it may be divided into four bedrooms of a good size.

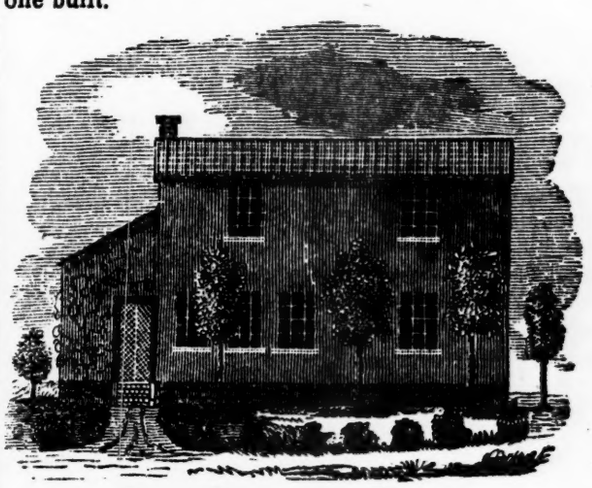
Now I must describe the manner of building "a piece at a time." In the first place put up the two-story part, which is 25 by 30 ft with 18 ft. posts. The north side, then, must be finished in a manner designed for the inside of the parlor and bedroom, afterwards to be added, which is to be 15 by 30 ft. with 8 ft. posts, and lean-to roof. To do this, lay off the door-ways as in the plan; lath up the studs and put on one coarse coat of plastering, and while still moist put on siding with small nails, not driven up, so that they can be taken off again without splitting. Serve the backside of the kitchen in the same way; or, if you are sure that you can put up the lean-to additions within a year or two, the



EAST ELEVATION.—FIG. 46.

plastering will stand without being protected by siding. Put up the back porch first—that is most needed—the pantry next—extending it to the west far enough to make a good large woodshed.

The next addition will be the parlor and bedroom, unless, indeed, you have put up the latter the year previous, with the pantry and woodshed. The parlor being the room least needed should be the last one built.



SOUTH ELEVATION.—FIG. 47.

If the whole of the exterior could be put up and enclosed, at first, if not finished, it would be the most economical, *if* (mind the *if*) the capital, to build with, will allow of it. But, I repeat, the main object of this design is to enable the man of small capital to build at first and from year to year according to his means.

If it is objected that the lean-to additions detract from the beauty of the front, I have only to say, that the farmer who contrives his house more for

mere outside show than inside convenience and comfort, will make a slave of his wife; but nature, or a bad education, will have made her a fool for a husband.

This plan of building is also particularly designed for what is well known about Chicago as a "balloon frame," but which, as I presume your eastern readers do not understand, I will describe, for it is a great saving of expense.

There is not a tenon nor mortice in the whole frame; except that sometimes the sills are framed together; but even that is unnecessary. To begin with the house under consideration—first lay a foundation of brick or stone, and lay sills, 3 by 6 inches, locked or halved together at the corners and nailed. On these, level the sleepers, made of timber of the same size as the sills, set edgewise and shouldered one inch to fit on the ends and a middle sill under the partition between the kitchen and sitting-room.

The studs should be of oak 2 by 6 inches. Saw them off square at the ends, 18 ft. long—cut gains six inches wide, one inch deep in the inner edge of the end studs 9½ ft. from lower end to upper edge of the gain. On the sides a strip is nailed on studs to nail ends of floor boards to. In these gains a strip 1¼ in. by 6 is to be nailed to support the chamber-floor joists. A strip same size nailed on top of studs forms the plates. A like strip should also be nailed on the end studs.

The sleepers should be 32 inches apart; the studs 16, and the joists 32 inches, having a "false joist" between each pair to lath to.

The beams 32 inches apart, should project at least 6 inches over the plate and lock on with a gain two inches deep with a stout spike driven up through the plate to hold them down. Also spike the end strip to the beams.

The rafters are bevelled and nailed to each beam; and braces firmly nailed from each rafter to each beam will effectually prevent either from sagging. The studding should be sheathed all over with half or three-quarter inch boards, which will be better if feather-edged together. When these and the siding are all nailed on, the frame will be found to be as stiff and in every way as good as one upon which the carpenter has expended $50 in hewing timber and beating mortices, and framing braces that never do any good until after the great heavy frame begins to lean, and then it is too late. In the place of this house, however, the "lean-to" upon two sides will form good braces.

Such is a brief outline of a "balloon frame," which I am confident can be built better and cheaper than the old-fashioned frame, at the general comparative prices of timber, labor, and nails, in any part of the United States.

Of course there are some kinds of buildings that require great strength of frame; but a common dwelling does not, neither do a great many of the out-buildings.

I have thought advisable to annex a bill of the principal materials it would be necessary to provide for building the first or two-story part of this house. The calculation is based upon plastering the north and west sides, preparatory to the additions. I have not estimated any floor for garret. The other floors and siding I allow one-fourth extra for waste and working. You will then require—

2 sills,	3	by 6	in.	each 30	ft. long.
3 "	3	" 6	"	" 25	"
20 sleepers,	3	" 6	"	" 15	"
20 joists,	2½	" 6	"	" 15	"
80 studs,	2	" 6	"	" 18	"
13 beams,	2½	" 6	"	" 26	"
26 rafters,	2	" 5	"	" 13	"
20 studs,	2	" 4	"	" 9½	"
Roof boards,					750
Sheathing,					1250
Siding,					1500
Flooring,					1800
Lath (about),					6000
Clear pine, assorted, from ⅛ to 1½ in. for finishing,					1000

Strips 1¼ to 6 inches for plates, and girders around studs inside to support chamber floor, and for lap studs in gable ends, and partition strips, and rafter-braces, &c., &c., say 1000 ft fair measure.

Eleven windows, 20 lights each, 8 by 10 glass, and two six-light windows for the N. W. chamber, makes 232 sash lights; 3 boxes of glass; 16 lbs. putty; 5000 brick for chimney and foundation; 10 barrels of lime.

It will be necessary to buy at least 8000 shingles; 100 lbs. 3 penny nails (for lath); 50 lbs. 4 *d.*; 50 lbs. 6 *d.*; 100 lbs. 8 *d.*; 100 lbs. 10 *d.*; 50 lbs. 12 *d.*; 50 lbs. 20 *d.*; 20 lbs. 40 *d.*

This bill comprises the bulk of the materials, and from which any person can make a calculation of the expense, or an approximation towards it.

Whenever my other avocations will admit of it, I intend to furnish you with a plan of "a poor man's house," which can also be built "a piece at a time."

I look upon plans of farm-buildings as the most valuable part of a farmer's journal. For it is a certain fact that nature has not given the faculty to one-half of mankind, to form the plan of the buildings they desire to occupy. SOLON ROBINSON.

Crown Point Lake C. H., Indiana.

PRESERVATION OF PEACH-TREES FROM THE ATTACK OF BORERS.

As the best method of preventing the destruction of peach-trees by borers is a matter of public interest, in different sections of the country, I will give my plan of preventing their ravages in young trees, and for expelling them from old ones.

I ascertained several years ago, that sulphur is more offensive to most kinds of insects than any other substance with which I was acquainted. When applied to fruit-trees, it lasts longer and is more permanent in its operation than anything I have tried. Peach-trees are often attacked by the worm in the nursery, which may easily be known by a blackish appearance, with exuded gum on the stem near the ground, and on the roots. When the young trees are taken from the nursery, for transplanting, they must carefully be examined and the worms removed with a long brad-awl, or a knife. Then rub over their upper roots and about six inches of the lower part of their stems with a mixture of any common oil or grease and the flour of sul-

phur, well incorporated by stirring. Sprinkle a table-spoonful of clear sulphur in the bottom of the holes, and then plant the trees in the usual way.

In order to expel the borer from old trees, I take a gimlet, or brace and bit, and bore three or four small holes in each tree near the ground, and fill them with flour of sulphur, with the aid of a quill. I also remove the earth from about the roots of the trees, as far as they are attacked by the worms; then apply the mixture of oil and sulphur as directed for young trees, replace the earth, and the process is complete.

Both of these modes are cheap, easy in their application, and as far as I have tried them, have proved effectual. B. F. WARD.

Butts Co., Ga., May 8, 1847.

ROAD MANURE.

TURNPIKES, and roads in general, are formed by running a plow along their sides, and after the earth is loosened by several furrows, it is scraped into the middle of the highway by oxen or horse-power, leaving a ditch or gutter at each side two or three feet wide and from one to two feet deep. These ditches are often completely filled up with fine, rich mould (commonly black), which is highly surcharged with the very essence of the road and of the adjacent grounds, having been washed thither by melting snows and teeming showers of rain. If the gutters are level, or only of a gentle descent, they will require no attention in order to retain the manure; but if the water flows through them with a rapid current, it will be necessary to make small dams across them every few rods to prevent the escape of the sediment that drags along their bottoms.

There is an objection, however, for the farmer to interfere in this manner with any public highway, as it would render him liable to prosecution and the payment of all damages which might accrue. If he could obtain permission, from proper authority, to deposit an equal volume of good gravel for every load of manure he might take away, the difficulty would be removed, and he could enrich his land at his own expense. J. S.

Sussex Co., N. J., May 7th, 1847.

HOW TO MAKE SUGAR OF MILK.—The mode of preparing this salt by the Swiss cowherds of the Alps, is, first to separate all the caseous and oily parts of the milk until nothing is left but pure whey. This is clarified by boiling until it is reduced to about one-fourth of its bulk; then it is poured into wooden or earthen pans, and put away in some place to cool. In a short time the saccharine or sugary particles crystallize, the watery part is gently and slowly poured off, and the sugar is placed on sheets of brown paper to dry. When taken in moderate quantities, this salt is considered by the Swiss doctors as a most excellent detergent to purify the blood, and a radical cure for the most inveterate cutaneous complaints.

SATURATION OF LIQUIDS.—No liquid can combine with, nor take up, more than a certain quantity of any solid or aëriform body; the point at which this action ceases is called *saturation*. Thus, water will only take up a certain known weight of alum, sugar, salt, &c.

A BOG-CUTTER.

I SEND you herewith a drawing of the bog-cutter which I described to you, and which has been used with great success in this neighborhood. The drawings, I believe, are sufficient to explain to a mechanic its structure, but I subjoin a few explanations.

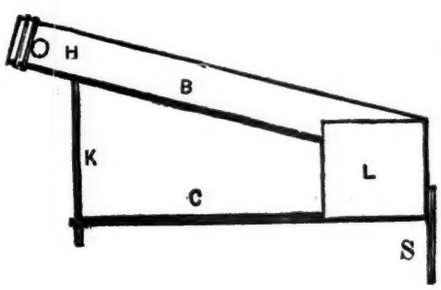


FIG. 48.

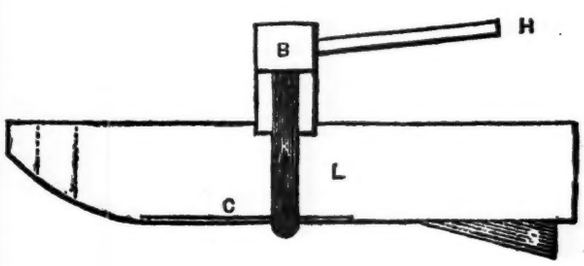


FIG. 49.

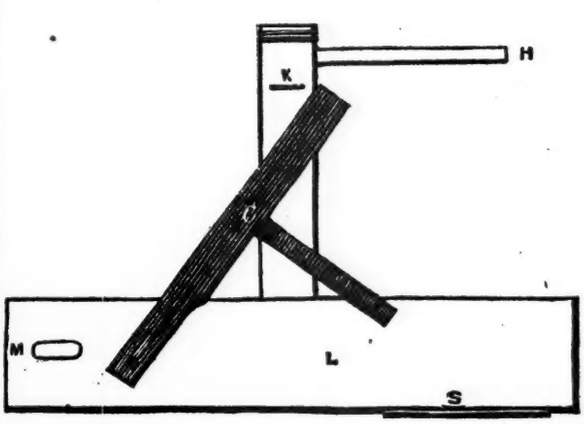


FIG. 50.

L, is a solid beam of oak 14 inches square, and curved at one end like a sled-runner.

B, is a solid beam of oak 6 inches square, to hold the knife K, which acts as a plow-coulter, and with the knife S, on the outer edge of the beam I, cuts the bog on both sides, so as to enable the knife C, to pare and lift it.

H, is a handle of stiff wood, two feet long, let into B, by bearing on, or lifting which, the machine is made to work deep, or is relieved of its burden of bogs.

In fig. 50, the letter M, represents a hole bored or

mortiсed through the beam for a chain, to which the team is hitched, and from two to three yoke of oxen are necessary according to the nature of the bog.

One stout man, after some practice, may hold the machine steady, and will work it fast enough to keep two men busy in cleaning away the bogs after him. E. JACKSON.

Middletown, Ct., May 19th, 1847.

Mr. Norton's Letters.—No. 6.

WITH a view to the gratification of your cheese-making subscribers, I send you this month a translation of directions for the manufacture of the celebrated *Gouda cheese*, considered by the Dutch themselves as their choicest variety. These directions were published by some of the largest dealers in cheese of Rotterdam.

Experience has shown that, in the following summer, and in accordance with the accompanying precautions, cheese can be made which has neither bitterness, toughness, nor want of solidity, defects very common, and which cannot be too carefully avoided.

In the commencement, care should be taken that the sun does not shine upon the milk; the vessels in which it is received should be provided with covers. As soon as the milk is brought to the house, it should be strained into a tub, and the rennet added, the tub then to be carefully covered so as to retain as much as possible of the natural heat of the milk. Three or four hours after the addition of rennet to the milk it must be strained, and the curd slowly broken with a wooden instrument; this is uninterruptedly continued until the curd has become fine and separated from the whey. After this it is left to settle four hours, to separate as much more of the whey as possible. It is now kneaded with the hand, separating still another portion of the whey. After this working it is placed in the cheese-press and worked anew to render it fine again, and also by this it is strongly packed into the press, which, being full, a cloth is laid over it, and the cheese turned over. The bottom now turned up, being broken, is smoothed by the hand, and covered by the follower. Upon this follower is laid a weight corresponding to the intended weight of the cheese.

The cheese must be turned every hour, and after three hours taken from the press, the first cloth replaced with a dry one; it is then again covered with the follower and the weight laid upon it doubled, care being had that the side that was before under is now above; the cheese is pressed nine hours by this weight, and must be turned once in three hours.

At the end of nine hours the cheese is again taken from the press, the cloth is removed, and it is placed in the *pickle-float;* the part floating above the pickle is covered with coarse salt to the thickness of three guldens (about the same as three dollars in thickness). This pickle must not be stronger than fifteen degrees of Baumé; if it is used stronger than this it is liable to crack the cheese.

The cheese remains in this pickle twenty-four hours, and during this time is turned twice, always taking care that it is covered with salt. It is now placed in a pickle of twenty degrees Baumé, in which it is turned once in twelve hours, always being covered with salt. At the expiration of eight or nine days, it is taken from the pickle and washed, after which it is placed on the stand or shelves, and should be turned at least once a day.

All of the above directions have reference to cheeses weighing ten Dutch pounds (equal to about 21 lbs. English).

Principal rules to be observed.

1. Never to employ warm water or whey in the working of the cheese.

2. The pickle for the rennet as well as for the *floating vessel*, must not be stronger than fifteen degrees, and for the pickling tub must always be twenty degrees of Baumé.

3. The bottom of the cheese press should be as flat as possible.

4. Whatever the weight of the cheese, the curd must be finely divided, and the whey perfectly pressed or wrung out.

5. In warm weather the cheese requires more salt, and is thus more quickly salted. Seven or eight days in summer, when the air is warm, are equal to ten or twelve days in cold weather or in autumn.

Directions for the Preparation of Dutch Rennet.—For twenty-five lebber (the Dutch name for the calves' stomachs), take seven Netherlands pounds of pickle of fifteen degrees Baumé. The lebben must be cut in bits of the length of a half finger. The pot containing it should be well covered, and set in a warm place. After ten days the solution becomes good, but if allowed to stand twenty days it should then be strained through a muslin cloth, or a very fine sieve, and preserved in air-tight bottles. Not more than two table-spoonfuls of this are necessary for ten Netherlands pounds of cheese.

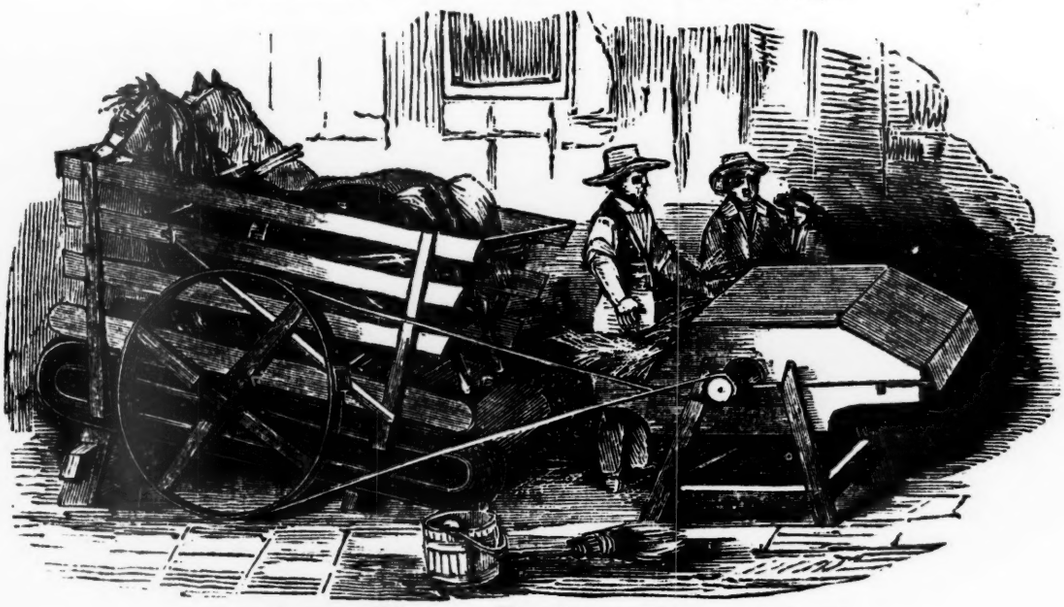
This rennet should thoroughly curdle the milk in three-fourths of an hour; if sooner than that, it is too strong, and if longer, a little more must be added to assist its operation.

Reference is made above to fifteen and twenty degrees Baumé. This is an instrument contrived by M. Baumé for measuring the strength of solutions by their density. I have not his tables by me, but as nearly as I can calculate that pickle of twenty degrees, referred to, contains about 21 per cent. of salt, and is therefore very strong. In one of the tables given by Berzelius it is stated that a saturated solution of common salt contains 29 per cent. of salt. JOHN P. NORTON.

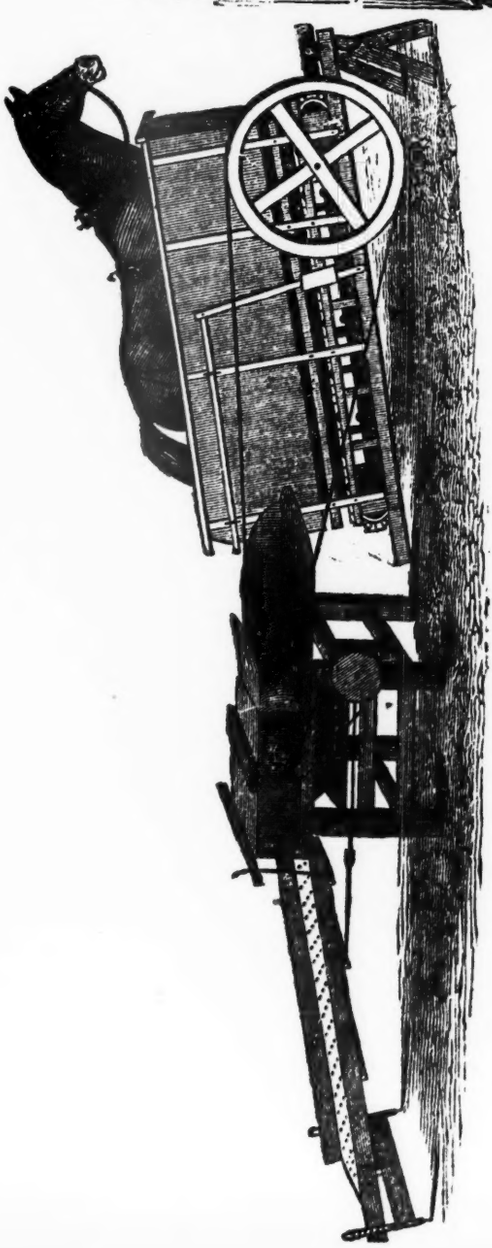
Utrecht, Holland, May 6th, 1847.

ZINC PANS INJURIOUS TO CREAM.—Zinc vessels or pans for cream have of late been extensively used in some parts of Europe under the impression that they favored the accumulation of a large quantity of cream. It has been recently ascertained, however, that the presence of the milk, and especially after it has become sour, has the effect of dissolving the metal, a part of which is held in solution, and another portion is converted into salts. In either condition this is a most deleterious compound, and the honest dairyman will not, after this discovery, permit zinc pans to be used on his premises.

WHEELER'S HORSE-POWER AND THRASHER.



TWO-HORSE POWER.—FIG. 52.



HORSE-POWER WITH SEPARATOR.—FIG. 51

THE machine, as delineated in Fig. 51, is adapted to the use of one horse, which, with the aid of two men and a boy, can thrash at the rate of 50 to 75 bushels of wheat, or 75 to 100 bushels of oats, in a day. If only a single horse be used, a change of horses should be made every two or three hours, as it is very tiresome to their legs to work it. The machine can readily be fitted for working two horses abreast, by increasing the width of the rotary platform as in Fig. 52, on which they stand, and increasing the length of the main shaft. The simple contrivance called the "shaker," or "separator," which is attached to the thrasher, saves much labor in winnowing the grain, besides leaving it without waste, entirely free from straw.

This horse-power is easily applied to various labor-saving machines, and is the kind mostly used at the New England railroad stations for sawing wood. The cost of the whole apparatus, ready for thrashing, is $110; or for the different parts as follows:—$75 for the horse-power, $28 for the thrasher, and $7 for the separator.

MODE OF KEEPING MILK TO PREVENT SOURING.

IN passing a store a short time since in rather an obscure part of the city, and seeing a large number of milk-cans standing about the premises, I walked in and learned the following particulars from a fine healthy woman, of middle age, who, with her daughter, a buxom girl of about sixteen, was standing behind the counter waiting upon customers:—They sell the milk of 300 cows, principally consigned to them from Orange county by different farmers, which brings 3 cents a quart at wholesale, and 4 cents retail. Each can is marked with the initials of the farmer from whom the milk is received, in order to avoid confusion when they are exchanged for return.

In answer to some inquiries about sour milk, I was informed that there is a great difference in that brought by different individuals. Some of that which is brought the greatest distance keeps the

longest; and in one instance they had never lost a single can. On asking the reason of this, I was told that the milkers must have filled the cans of *cold* milk with *warm* milk directly from the cows, which causes it to sour. "This," said the woman, "is always the effect of mixing the two." Another cause of souring, she said, "is in consequence of not immediately depriving the milk of its animal heat. Some farmers set the cans of milk in cold water, and there leave them. The water soon becomes warm, and is but little better than if they were not put in at all. Others draw off the water as soon as it becomes warm, and replace it with cold, until the milk is sufficiently cooled; while others place their cans in a cold spring or vat of running water, where it soon becomes perfectly cold. But the best way," said she, "for I was brought up on a dairy-farm, is to put the milk in large pans placed in running water, which will cause it to cool immediately; and then pour it into the cans, leaving off the lids or covers, for all the gases to escape, until they are ready to convey to market."

By this time the husband came in, and I turned my attention to him, as his wife and daughter were busily engaged in waiting upon their customers. On asking him whether some lots of milk from the same cows do not make more butter at one time than another, he replied that he had churned through the hot weather with his own hands; that he had measured the milk and weighed the butter produced from it; and that he had found it would require from 11 to 20 quarts of milk, brought from the same farm, to make a pound of butter, but could give no satisfactory reason why it was so.

New York, June 1st, 1847. A TRAVELLER.

PLANTING CUTTINGS IN VINEYARDS.

IN the report of the proceedings of the New York Farmers' Club, in the May number of the Agriculturist, I perceive some remarks by Dr. Underhill, which seem to contain rather a sweeping denunciation of the article on "Planting the Isabella Grape Vine," published in the February number of the same journal. Dr. Underhill, I think, very deservedly enjoys a high reputation as a successful grower of grapes, and his opinion is entitled to considerable weight, which I cheerfully concede; but as he is not infallible even in regard to the grape, and as his opinion on this subject passes with many for "law and gospel," it seems to me unreasonable, that his mere assertion, particularly when it conflicts with the experience of hundreds of others, should be given to the world without some qualification.

That the good-natured Doctor means well, and believes what he says, I am perfectly willing to admit; but in the heat of debate his enthusiasm often carries him much further than he would be willing to go in his cooler moments, and he is the last man to recede from a position he has once taken. It is one of the Doctor's foibles that he believes he has discovered the only true method of cultivating the grape, and that all others are wrong; and consequently he denounces in strong terms every system which is not a fac-simile of his own. I have read your article with much care, and though my own views on the subject differ a little from yours, I must say that I consider your remarks, on the whole, as being very judicious and much to the purpose. Now I, for one, should like the Doctor to tell us *why* your directions are not adapted to this country. His naked denial is nothing to the purpose, unless he can back it by some good and substantial *reasons*. But I do not design to enter into a discussion here; what I more particularly wish to notice, is, the Doctor's broad assertion that cuttings will not succeed in the vineyard. Now I venture to assert, that I have had more experience than the Doctor himself in striking cuttings in this country, and I take upon myself to say that, as a general thing, they *will* succeed; and a person who understands their nature, with ordinary care, will generally lose as few in the vineyard as the Doctor frequently does in his nursery. If he had said the practice would not succeed on Croton Point, he would have said a fact within his own experience, and one which no one would have felt inclined to doubt who had ever seen that place; for the soil of his vineyards is little else than pure sand, which the wind plays with at pleasure. This statement is made on the authority of a person who is perfectly familiar with Croton Point, and there is no reason to doubt its correctness. In such a soil it would be difficult to make cuttings of any kind strike, except in a wet season, and then they would strike nowhere better. The Doctor makes a great mistake in supposing that what will not succeed on Croton Point will not succeed anywhere. It is absurd to make Croton Point the standard, as it were, of the whole country. The Doctor will have to yield the point in this case, for experience is strongly against him. But perhaps I have said enough for the present. I will just remark in conclusion, that there may naturally be a difference of opinion as to the relative advantages of striking cuttings in the nursery and in the vineyard, and this subject I am quite willing to discuss with the Doctor. I leave him to choose which side he pleases. The fact, that cuttings will generally strike in the vineyard under ordinary circumstances, seems past dispute. PAX.

IMPROVED CANDLE-WICKS.—An improved candle may be made by steeping cotton wicks in lime-water, in which a considerable quantity of salt-petre (nitre) has been dissolved. By this means is obtained a pure flame and a superior light; a more perfect combustion is ensured; snuffing is rendered nearly as superfluous as in wax-lights; and the candles thus made do not run nor waste. The wicks should be thoroughly dry before they are covered with tallow, otherwise they will not burn with a uniform and clear light.

EXHIBITION OF THE N. Y. STATE AGRICULTURAL SOCIETY AT SARATOGA.—Those who intend to compete for premiums should remember that *all the animals and articles must be ready* for examination on the *first day* of the exhibition, Tuesday, the 14th of September. The first day will be devoted *exclusively* to the examination by the judges of the animals and articles exhibited, and no persons will be admitted within the enclosures on that day but the officers of the society, judges, and exhibi tors.

Ladies' Department.

BOOK-FARMING—THE SHREW-MOLE AND CUT-WORM.

OLD LADIES' DIARY.—*April 7th.* My whole household in open rebellion!—What is to be done? Not to be vexed is not to be woman; but not to be amused is out of my power. It is well for me that Betsey and Peter do not write diaries, for I fear that I should make a sorry figure in their account of to-day. Betsey decidedly disapproves of making soap of potash, and wasting the *ashes* by sprinkling them on the grass; and is determined not to do it if she can help it. "The soap is not so clear and nice looking." I know it, Betsey; but then it never fails, and takes so much less time and trouble. "We never fail when the ley is good." No, but the ley is often too weak, and good soap cannot be made without strong ley, and bad soap is a great waste and disappointment. "We always have good soap when the ashes are kept dry and are not wasted, and when the ley-tubs are carefully set." But the contrary is too often the case, and the soap spoiled; besides, I want the ashes for the early pasture-lot, and so should you, for no one is more fond of early grass-butter than you are. "Ashes for manure," grumbled Betsey. "No one shall ever catch me farming from books—now book-farming is in fashion, all old ways are to be put aside." Do you remember, said I, what your grandfather used to say? He believed that ashes were clover-seed. I think, too, that we gained something worth remembering when we learned from books to dry and pack our hams before the skipper-fly made its appearance; and that charcoal is the best thing to pack them in. We have had no skippers in them since then. Betsey went her way looking as people always do when they do not choose to be convinced, and I went to the kitchen. Sally, did you put the ham on to cook, before breakfast, as I desired you. "No, ma'am, I had time to make the pie-crusts, and I thought it better to have them ready whenever it should be convenient to bake them, and there is plenty of time to boil the ham before dinner." O, Sally! Will you never learn that an *old* ham should never boil? It should only simmer, and then it takes hours to cook. An *old* ham *boils* hard and dry, but *simmers* tender and juicy—and have I not shown to you twenty times, that pie-crust becomes flat and heavy if not baked as soon as the pies are made, and heavy crust is neither good nor wholesome? The ham must not be spoiled by hasty boiling, so we must see for something else for dinner.

An hour was thus wasted in making up a dinner, and good humor lost for the day. I then went to see if my out-door directions had been better attended to. My raspberries have been mismanaged for some years, and now are failing sadly. Experience has proved that rotten wood or leaves mixed with sand is the best manure for them, and that equal proportions of rotten wood sand and good garden loam, is the best for green-house plants, particularly roses, Cape jasmines, and Daphnes. Rotten wood must therefore be of great value to mix in the manure-heap. A quantity of shavings left by the carpenter were ordered to be spread over the barn-yard and pig-pen. George, have you spread the shavings? "No, marm, I met neighbor Prejudice, and he says they will do more harm than good, that they will soak up the water and keep it always wet, and that we had better dig a drain to dry the yard." Then where am I to get the wood for my next year's compost heap? Mr. Prejudice says stable-manure is best for everything, and we will have plenty to spare for the garden and all you want for the flowers, and if you wish rotten wood we can get it from the woods. And so lose a day in hauling earth from the woods, besides the drainings from the stable and manure-heap, because a neighbor chooses to think for me. "I can do it, if you say so," said he, "but it is of no use." Then do it, said I, leaving him looking like a martyr.

I next proceeded to the garden, hoping to be more successful with my old friend Peter, though a slight suspicion crossed my mind that he had been at the bottom of the rebellion, for he has a thorough contempt for all *book-learning*, and tolerates nothing in the literary line but the village newspaper and the old-fashioned almanac with that grotesque frontispiece, the mystic man surrounded by his attendants the "Ram, the Bull, and Heavenly Twins,"—for which I, too, have a lurking kindness, remembering my childish faith in all the signs good and bad—believing if it did not rain or snow, when the almanac said it would, that it was an accident, and should have done so, no matter from which quarter the wind blew. Therefore, when I told Peter to plant the potatoes to-morrow, and he replied that it was not the right sign and we must wait until next week, I was not much surprised at the objection, though not inclined to yield; but was sure of obedience when I hastened to save the life of a mole which he turned out with his spade, and was preparing to kill. Oh, don't kill it, said I, it is one of our best friends, don't you know that they feed on insects, and eat the grubs, and cut-worms, and all those destructive pests that do us so much injury? "No, marm, I don't, but I do know that they spoil the grass-plot, and eat up all the hyacinths and tulip-roots." You are mistaken, Peter, they live on the worms and grubs that destroy our flower-roots, and until we can find some better way of catching them, we must let the moles live, and not mind their ugly marks across the grass; when the destructive insects are gone, the moles will leave us too. This was too much for Peter to bear, he did not believe a word of the moles eating the cut-worms and not the roots, and to be expected to plant potatoes when the sign was up and not in the fish, was out of all reason. He was driven to desperation, and throwing down his spade stood erect and said, "Then, marm, if you will neither let me kill the moles, nor plant the potatoes when there will be a chance of their yielding a good crop, you must get some one to do your work who has more book-learning than I have." Now this was not what either Peter or I intended, so like a wise general, I felt that "discretion was the better part of valor," and made a prudent retreat. I knew that the potatoes would grow if planted next week, but we could not bring the moles to life again. Oh, said I, I don't care when you plant the potatoes; but I will not have the moles killed until we get rid of the cut-worms. The old man picked up his

spade, he had gained on the potatoes and could afford to lose on the moles, and silently went on with his work, giving a look of despair as he saw the mole disappear in the grass-plot. There will be no use in telling him the histories of either mole or cut-worm, so I will write them, and have them published in the only place where he would condescend to read them, the village newspaper.

The true or European mole is not found in the United States. The animal so well known bearing that name is of a different family, its proper name is *shrew-mole*, or crested shrew (*Sorex cristatus*). These moles live in pairs, and are chiefly found in places where the soil is soft, and affords the greatest quantity of worms and insects. In the winter they burrow near streams where the ground is not deeply frozen. Shrew-moles are most active early in the morning and noon. The precision with which these creatures come to the surface at mid-day is very remarkable. Their strong broad feet enable them to remove the earth before them with great rapidity, and as their keen hearing warns them of the approach of danger, it is therefore extremely difficult to catch them. Their food consists of earth-worms, grubs, and the larvæ of insects. When once a field is infested by moles, the farmer may be sure that insects and grubs are abundant. The cut-worm is a favorite food, and therefore old grass-plots will often be disfigured by their tracks.

The cut-worm is the young or larva of the soft brown beetle that appears in May and June, commonly called the May-bug (*Phillophaga quercina*). These beetles usually pass the greater part of the day sitting on the branches of trees or clinging to the under side of the leaves on which they feed; but as evening approaches they begin to buzz about and continue on the wing until near midnight. In the beetle form they live only five or six days, and the whole brood disappear in a month. The female deposits 80 or 90 eggs, in the ground, of a pale yellow color and slightly oblong in shape. In fourteen days the eggs hatch, and the worm is then very small. The first year it grows half an inch long, the second an inch, and the third an inch and a half. Their food consists of the tender roots and shoots of corn, grass, and various other plants. When winter comes on, they bury themselves deep in the ground and remain without food until spring. At the beginning of the fourth year, when the grub has attained its full size, it buries itself from two to six feet deep in the earth, forms for itself a cell by turning round and moistening the earth with spittle, thus making the sides smooth and compact, and then waits its final change. The complete transformation of a cut-worm or May-bug, occupies a space of five years, or even in case the beetle be retarded in its growth by its food or unfavorable weather, sometimes six years. The May-bug is one of our most destructive insects, as the cut-worm spares neither corn-fields nor meadows. They often destroy potatoes and other vegetables, and gnaw the roots of trees and vines, so as to make them unhealthy. The full-grown insect is quite as destructive as the grub, devouring the tender leaves and buds of fruit and forest trees, and thus giving them an early blight. Pigs, moles, field-mice, skunks, crows, wood-peckers, hawks, and the large ground beetles greedily search after and feed on the cut-worm. I wonder if Peter will believe this!

REARING OF SILK-WORMS.

Most welcome was the April number of the Agriculturist. We had always perused it with interest, and now that our long indulged anticipations of a country residence "under our own vine and fig-tree" are realized, we regretted that so useful a paper should have deserted us. Agricultural papers are particularly useful to all who commence cultivating the soil late in life. It is easy to ascertain the best way of getting fruit and flowers, but the more practical part of obtaining a living is aided much by the recorded experience of others. We have examined our agricultural library for directions in planting all our fruit, we find no experiments with cranberries as far south as Virginia. It may be they flourish better in a cold climate than in a warmer one.

Why are there so few *lady correspondents* in the agricultural papers? I think one or two pages might be profitably occupied in directions for the culture of the mulberry and the manufacture of silk. If every farmer's wife and daughters would devote the expenditure for one year's silk dresses to purchasing the necessaries for raising silk-worms, it would be but a short time before we could export cocoons sufficient to pay for all the silk imported, and save the immense sum that is annually paid to foreign nations for this article, or if American enterprise were encouraged, we would soon compete with any nation in the hue and texture of our own manufactures. Several of the States now produce very fine silks, and it is thought that we possess every facility for raising the mulberry. Let no one say her individual influence cannot affect the twenty millions paid for silk, or that she has not the necessary time to spare; for the children of a family, without encroaching upon their other avocations, can perform most of the labor. We can follow the example of the Roman ladies, and make our own wardrobe, and silence the assertion that there must be finery in the United States, follow what may in the rear.

We could also silence the complaint of hard times, and scarcity of money, and show the world that though accused of extreme vanity, we possess energy, industry, and patriotism, equal to that of our ancestors, when they denied themselves the luxury of tea.

Will not E. S. agree with me, and lend her accomplished pen to support my proposition?

S. H. R

Lake Borgne Place, Prospect Hill, Va.

How to Make Good Tea.—Boil rain water and pour upon your tea, letting it steep from one to two minutes if you wish to realize the true taste of the "plant divine." Well, river, or spring water, in many parts of the country, is strongly impregnated with lime, which acts chemically upon the tea-leaf, and greatly deteriorates, or destroys its fine aromatic flavor. In fact, water, containing lime, or much vegetable matter in solution, has more or less effect upon all kinds of cookery. Besides, it is highly injurious to the health of most persons.

Boys' Department.

ANECDOTES OF ANIMALS.—No. 1.

"Love me, love my dog."

THERE are no animals of which boys are more justly fond and proud than their dogs; and as I have never found them weary of listening to, or reading anecdotes about them, I will begin by telling some stories of our canine favorites, which I have the very best reason to believe to be strictly true.

Some years ago a fine house-dog, which had grown old in the service of a kind master, was asleep in an upper room that overlooked the field where the cattle were grazing. The gentleman observing some little disturbance among the cows, ordered the dog to go and bring them to the barn-yard, a duty he had performed daily for years. At first, he only looked quietly up, and closed his eyes again for another nap; but upon receiving another order, he rose, wagged his tail slowly, and whined, but did not obey. His master, who at the time was lame with the gout, and perhaps a little impatient, then said in a voice half reproachful and half sorrowful—"Get you gone, Towzer! you have become old, and are as good for nothing as your master." The faithful animal looked wistfully in his face, gave a long low whine as if he understood what was addressed to him, turned slowly round, and jumped through the window to the roof of the piazza beneath it, ran in an opposite direction from the field where the cattle were; and disregarding the eager calls of the men, he never once looked back, but disappeared in the underbrush of the neighboring thicket. From that day he was never seen nor heard of, though a considerable reward was offered for his recovery. No doubt he hid himself among the rocks to die alone, as animals of various kinds are well known to do.

I have often, when a child, heard my old friend tell this anecdote with great feeling, and he always ended by saying in a sadly impressive tone, that he would give the worth of fifty such dogs,—no trifling sum—to be able to lose the remembrance of the unkind tone in which he had spoken to his faithful old favorite.

Let it be a lesson to boys, and girls, too, never to speak harshly, nor treat unkindly, "even a dog."

Another dog-story which I have heard related with many variations, I shall tell as it occurred at a house not far distant from my residence.

A fine English mastiff and a little dog "of no particular kind" occupied the same kennel very peaceably in pleasant weather, but they might well be called "fair-weather friends;" for, no sooner did a rough, cold spell come on, than ill temper and great dissatisfaction were the immediate result. The mastiff taking advantage of his strength, and thinking probably that "might makes right," always took possession of the house and left his poor little companion to shiver in the door-way, or shift for himself where he could.

This state of things continued during nearly a year, when one day the rain fell incessantly, and froze as it descended, the forlorn little fellow seemed completely at his wit's end. He crept in as far as he could, then cold and wet, tried various ways of warming his half-frozen limbs. At last he suddenly started up, ran rapidly to the corner of the house, barked violently, and then rushed back as if seeking protection from an approaching enemy. This he repeated until the attention and good feelings of the mastiff were completely roused, and he too rushed to the corner, challenging the imaginary foe with furious barking; but seeing nothing on which to vent his wrath, he went back to his lair and found the tables turned to good effect. The cunning little dog had no sooner seen him at a distance, than he stowed himself snugly away in the warm corner of the kennel. The mastiff looked in, as if half disposed to resent such an infringement of his long enjoyed rights,—but (was he ashamed of being outwitted, or did he feel that he was suffering justly?)—he put his tail between his legs, and crept in too!

Eutawah. E. S.

DR. FRANKLIN'S MODE OF LEARNING TO SWIM.—Choose a place where the water deepens gradually, walk coolly into it till it is up to your breast, then turn round, your face to the shore, and throw an egg into the water, between you and the shore. It will sink to the bottom, and be easily seen there, as your water is clear. It must lie in water so deep as that you cannot reach it to take it up but by diving for it. To encourage yourself in order to do this, reflect that your progress will be from deeper to shallower water, and that at any time you may, by bringing your legs under you, and standing on the bottom, raise your head far above the water. Then plunge under it, with your eyes open, throwing yourself towards the egg, and endeavoring by the action of your hands and feet against the water, to get forward till within reach of it. In this attempt you will find, that the water buoys you up against your inclination; that it is not so easy a thing to sink as you imagined; that you cannot but by active force get down to the egg. Thus you feel the power of the water to support you, and learn to confide in that power; while your endeavors to overcome it, and to reach the egg, teach you the manner of acting on the water with your feet and hands, which action is afterwards used in swimming to support your head higher above water, or to go forward through it.

A WORD TO BOYS.—The learned Blacksmith says: Boys, did you ever think that this great world, with all its wealth and woe, with all its mines and mountains, oceans, seas, and rivers, with all its shipping, its steamboats, railroads, and magnetic telegraphs; with all its millions of darkly-groping men, and all the science and progress of ages, will soon be given over to the hands of the boys of the present age—boys like you, assembled in school rooms, or playing without them, on both sides of the Atlantic? Believe it, and look abroad upon your inheritance and get ready to enter upon its possession. The Kings, Presidents, Governors, Statesmen, Philosophers, Ministers, Teachers, Men of the future, all are boys, whose feet, like yours, cannot reach the floor, when seated on the benches upon which they are learning to master the monosyllables of their respective languages.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the Steamer Cambria, we are in receipt of European journals to the 4th of June.

Markets.—*Ashes* in limited demand and prices scarcely supported. *Cotton*, an advance of ⅛ to ¼d. per lb. *Wheat, Flour, Indian Corn, Meal, and Rice*, a considerable fall in prices. *Provisions* no change. *Yellow Corn* 1 to 3s. per cwt. dearer. *Naval Stores and Tobacco* dull. *Wool* more brisk.

Money is much easier, though still hard to be obtained except upon the best of paper at a short time to run. The current rate on this was 4 to 5 per cent.

The Weather had been very fine for three weeks, and with the exception of the potato, all crops were highly promising throughout Europe. Large quantities of grain were ready for shipment at St. Petersburg, Odessa, and Egypt, and the probability is, that the French and British markets hereafter will be well supplied.

Cheese Imported into Great Britain.—The total quantity of cheese imported into the United Kingdom from Europe during the year 1846, amounted to 249,664 cwt., and the quantity imported from the United States to 91,901 cwt.

Cotton-Growing in Africa.—Accounts from the Cape of Good Hope mention that an experiment made last year at Natal, on the southwest coast of Africa, in growing the cotton-plant, had been very successful, and that a joint-stock company had been formed to perfect and extend the cultivation.

A New Source for Supplying India-Rubber.—It is stated that the forests of Assam, in British India, are capable of producing India-rubber sufficient to supply the demands of the civilized world, and that it has already become an extensive article of export from that province.

A New Mode of Preparing Cream for Churning.—When cream is being collected for churning, as soon as the first skimming is put into the vessel, add at the rate of half a pint of vinegar to each gallon of cream. Suppose you churn six gallons at a time, and collect only one gallon per day, put six half pints of vinegar in the vessel, at once, to the first day's cream, and so in proportion to any other quantity. Let all the vinegar for the whole churning be added to the first collected cream. I had this from a friend who supplies a large quantity of butter of the best quality to one of the crack shops at the west end. [Has anybody ever tried this in the United States?]—*Gardeners' Chronicle.*

Humble Bees Destructive to Bean-Flowers.—It is a well-established fact that bees are exceedingly serviceable in rendering flowers prolific; but it is not so generally known that many are greatly injured by them, and few farmers are probably aware that humble bees in some seasons deprive them, it is believed, of a very large proportion of their crop of beans, by puncturing the base of the flowers and rendering the incipient pod entirely or partially abortive. Many garden flowers are similarly attacked by these bees, as lark-spurs, azaleas, fuchsias, salvias, snap-dragons, and probably many others.

The cause of the humble bees thus damaging the crops of beans and flowers arises possibly from some unusually large females, for individuals of the same species vary greatly in size, not being able to creep into many flowers that are too small to admit of their bodies, and too long to allow of their reaching the nectary with their tongues. They are not, however, to be thus balked of their feast, and instinct directs them to the exact spot on the calyx beneath which the nectar is stored. There they nibble with their strong jaws until they are enabled to introduce their probosces and obtain the desired treasure. It is surprising, too, that in flowers of a peculiar structure, the bees make two holes, to extract the nectar on both sides of the germen, simply to save trouble. It is a question, however, whether these insects are not more beneficial than injurious to crops; for if they could be extirpated, in all probability the beans would not be so prolific, and by the destruction of some flowers it is almost certain that those which escape form larger and finer pods and seeds. These are fit subjects for the cultivator to investigate, and into his hands we consign them. Hive-bees have been accused also of assisting in puncturing the flowers, but Mr. Darwin thinks they only participate in taking advantage of the labors of their bustling neighbors, as they do not exhibit the adroitness which the humble bees do, in detecting the hidden treasure.—*J. Curtis in Journal of Royal Ag. Soc.*

Thermometers.—I would call the attention of all persons having hothouses and greenhouses to the value of having two thermometers hanging in them, the one with a dry, and the other with a wet bulb. By this plan the state of humidity in the air is to be seen in a moment, by comparing the height of the two thermometers in degrees. About ten degrees between the readings of the two thermometers is what is required by most plants for their well being; the wet-bulb thermometer being the lowest. The two thermometers ought, with both bulbs dry, to indicate the same heat in rising and falling, and ought to undergo this trial, previously to being used in a hothouse. Thermometers cannot be expected to work correctly unless purchased at the best instrument makers in London. Some gardeners may already use what I mention, but many are ignorant about it.—*Gard. Chron.*

New Era in Navigation.—On the 20th inst. the three-masted schooner New Brunswick anchored outside Chicago harbor, loaded with 18,000 bushels of wheat, with which she had *cleared for Liverpool.* She goes by the way of Welland Canal and St. Lawrence. This is the first clearance of the kind ever made from the inland waters of the great lakes for an European port, and constitutes a new era in the history of navigation.—*Quebec Gazette.*

Vinous Fermentation.—If water holding saccharine matter in solution be exposed to a temperature of about 60° Fahr., an intestine motion takes place, and bubbles of carbonic acid gas are evolved slowly at first, but afterwards more rapidly. In proportion to the evolution of this gas, the liquor loses its sweetness—its temperature rises and its specific gravity diminishes; after a time the formation of carbonic acid ceases, the sweetness is no longer perceptible, and the temperature of the fluid remains stationary; it is then said to have undergone the vinous fermentation, and to have been converted into an intoxicating, or, as it is commonly called, a fermented liquor.

The chemical change which takes place during the fermentation is very simple; it consists merely in the decomposition of the sugar, and a new arrangement of its elements—about one-half its weight being converted into alcoholic or pure spirit, and the other half into carbonic acid. It is owing to this change that the specific gravity of the liquor is diminished; the sugar, a substance of considerable density, being replaced by alcohol, a fluid of much less specific gravity than that of water.

The result is the same, whatever may be the nature of the saccharine fluid; whether it be a natural production, as the juice of the grape or the apple, or an artificial combination of saccharine matter and water, such as a solution of sugar or molasses, or the wort of malted grain. On the other hand, chemists are not acquainted with any other means by which alcohol or ardent spirit can be produced; brandy, rum, whiskey, gin, arrack, &c., are all, in the first instance, products of the vinous fermentation, being afterwards separated by distillation from the water, mucilage, and other foreign matters, that all fermented liquors contain.—*Gardeners' Chronicle.*

Editor's Table.

WASHINGTON'S AGRICULTURAL CORRESPONDENCE to Arthur Young and Sir John Sinclair, with Statistical Tables and Remarks by Thomas Jefferson, Richard Peters, and other Gentlemen, on the Economy and Management of Farms in the United States. Edited by Franklin Knight, pp. 198 quarto. It has been the object of the editor in bringing out this work to make the agricultural community acquainted with the *Illustrious Farmer of Mount Vernon*, he, "who was first in war, first in peace, and first in the hearts of his countrymen."

Washington is universally known as a successful general and a wise statesman. But, reader, are you aware that agriculture was his study and delight? That in the cultivated field his practice was as excellent as his skill in the field of battle? And that his maxims of husbandry were as wise as his political precepts? So important did he consider the position of the American Farmer, both as to the wealth and prosperity of the nation, that he himself, setting the prime example, devoted all his leisure time, either to the culture of his farm in person, overseeing and directing all things with his own eye, or in conducting an extensive correspondence on the subject with some of the most experienced and enlightened men in Europe. Therefore, the letters and other information, contained in the work before us, cannot be too highly prized, and we heartily wish that they might be read by every person in the country. The book is elegantly got up, ornamented by a beautiful portrait of Washington, with several views of his estate at Mount Vernon; and, we are happy to learn, it is extensively adopted as a premium to be contended for by agriculturists in our State and County Societies.

The work is for sale by Baker and Scribner, of New York, and William S. Martien, of Philadelphia. Price $3.50 to $6, according to binding and size.

A DICTIONARY OF MODERN GARDENING. By George W. Johnson, Author of the Principles of Practical Gardening, &c., &c., with 180 wood-cuts. Edited with Numerous Additions, by David Landreth. Philadelphia: Lea and Blanchard, pp. 635, 12mo. Price $1.75. We are pleased to announce this valuable work of Mr. Johnson, *Americanized* by so experienced a horticulturist as Mr. Landreth, which has been greatly altered from the original. Many articles of little interest to Americans have been curtailed, or wholly omitted, and much new matter, with numerous illustrations, added. It appears to have been an object with Mr. Landreth to increase the popular character of the work, thereby adapting it to the larger class of horticultural readers in this country, forming a complete Encyclopædia of Gardening, in so cheap and condensed a form as to be within the reach of most persons interested in rural affairs. We have it for sale at our warehouse.

WASHINGTON AND HIS GENERALS. By J. T. Headley, 8th Edition. New York: Baker and Scribner, 36 Park Row, 2 vols. 12mo. pp. 720. The brilliancy, as a writer, of the author of Napoleon and his Marshals, is too well known to need comment here. In a similar manner, as with his Napoleon, he has designed to group around Washington the chief characters and scenes of our Revolution, by giving the eventful part, rather than its detailed history. The work is neatly got up, illustrated by sixteen portraits from steel engravings. For sale by C. M. Saxton, 205 Broadway, N. Y. Price $2.50.

A CYCLOPÆDIA OF 6000 PRACTICAL RECEIPTS, and Collateral Information in the Arts, Manufactures, and Trades, including Medicine, Pharmacy, and Domestic Economy. Designed as a Compendious Book of Reference for the Manufacturer, Tradesman, Amateur, and Heads of Families. By Arnold J. Cooley, Practical Chemist. Illustrated with Numerous Engravings. New York: D. Appleton & Co., pp. 576, 8vo. Price $2. The design of this work is to present an accurate and compendious collection of formulæ and processes, with a variety of information suitable to the general reader, and practical purposes. We should judge that it constitutes the best manual extant, for family use, for the culinary and other departments of household life, and will prove particularly useful to the dairyman, the farmer, and, in short, to almost every manufacturer in the arts.

A STATEMENT OF THE CLAIMS OF CHARLES T. JACKSON, M.D., to the Discovery of the Applicability of Sulphuric Ether to the Prevention of Pain in Surgical Operations. By Martin Gay, M.D. Boston: pp. 48, 12mo. This pamphlet presents a general statement of the most important facts relating to the history of the above-named discovery, and establishes beyond a doubt that its application originated with Dr. Jackson, by experiments on himself and others, and that he had urged its use as a preventive of pain in dental operations, as early as 1842.

THE MINING JOURNAL and American Rail-Road Gazette, Devoted to Improvements in Mining, Manufactures, Inter-Communication, and the Arts, is published semi-monthly at the Office of the Merchants' Magazine, 142 Fulton St., N. Y., by John E. Grant, at $3 per annum.

THE ROSE CULTURIST; a Practical Treatise on the Cultivation and Management of the Rose; just published and for sale at 25 cents, by W. H. Starr, 135 Nassau street, N. Y.

ILLUSTRATED BOTANY.—The Illustrated Botany noticed in our last volume, published by J. K. Wellman, has passed into the hands of B. H. Culver, 139 Nassau St., N. Y., and is issued monthly at $3 per annum.

LIEBIG'S AGRICULTURAL CHEMISTRY. Edited from the Manuscript of the Author, by Professors Playfair and Gregory, from the 4th London Edition, Revised and Enlarged. New York: Wiley & Putnam, pp. 400, 12mo. Price 75 cents. The present edition has been entirely revised, and is enriched with a large number of recent analyses of manures, and especially of the ashes of plants, the greater part of which have been made under the eye of the author in his laboratory at Giessen, and with the aid of the most improved methods. The work appears to be accurately printed, and is a decided improvement over all former editions.

THE WORKS OF FLAVIUS JOSEPHUS; A New Translation, by Rev. Dr. Robert Traill, with Notes, Explanatory Essays, etc., by Rev. Isaac Taylor, of Ongar, and Numerous Pictorial Illustrations. New York: Harper & Brothers. The entire works of the Jewish Historian constitute in this translation, two portions. The first contains his "Life," by himself, the "Jewish War," and the two books against "Apion," with at least one hundred engravings, and is now in the course of publication. The second portion is immediately to succeed the completion of the first, and will comprise the "Antiquities," with some apocryphal pieces which have usually been attributed to Josephus.

The American edition will contain every word of the original, and will be published in parts of 64 octavo pages each, at about one-fifth the price of the London copy. The first two numbers have been issued and are for sale at 25 cents each.

INSTRUCTIONS TO YOUNG SPORTSMEN, in all that relates to Guns and Shooting, by Lieut. Col. P. Hawker. First American, from the ninth London edition, to which is added the Hunting and Shooting of North America, with descriptions of the animals and birds, carefully collected from authentic sources, by Wm. T. Porter, Esq., editor of the New York Spirit of the Times, pp. 456 octavo, with numerous illustrations.

Lea & Blanchard. Philadelphia. Price $2.75. We believe we do not err when we say, that Col. Hawker's work is considered the best of the kind yet published in England; and the reader may judge of the additional merits of the American edition, when we inform him that its accomplished editor has not only drawn from his own large experience in all sporting matters, but has also liberally taxed the distinguished pens of Herbert, Audubon, Giraud, Chapin, Thorpe, Lewis, Sibley, Willis, Alexander, Haliburton, Kendall, and several others too modest to own their contributions. The illustrations are really beautiful, and in all respects the publishers have done well their part. Every country gentleman ought to possess this volume; for, aside from its merit as a sporting work, it contains valuable articles on Natural History, and essays of a high literary order.

THE BOY'S SUMMER BOOK: By Thomas Miller. New York: Harpers, pp. 128, 12mo. Price 37½ cents. This little volume, which is a reprint of the London edition, constitutes a part of the Boy's Own Library, and is descriptive of the season, scenery, rural life, and country amusements of England. It is beautifully illustrated, and will form a handsome present for any good boy who has behaved well in school, or made himself useful at home.

THE AMERICAN ARCHITECT, comprising Original Designs of Country Residences adapted to the taste and circumstances of the Merchant, the Farmer, and the Mechanic. By An Association of Practical Architects. New York: C. M. Saxton, 205 Broadway. Price 25 cents per number.

THE AMERICAN PENNY MAGAZINE AND FAMILY NEWSPAPER, edited and published by Theodore Dwight, 112 Broadway, N. Y., at $2 a year. Every subscriber, after sending his payment in advance for a year, will be furnished with 25 seeds of that elegant tree, the Catalpa. The history and directions for rearing it will be found in the work. Persons sending the money for several subscribers, will receive a proportionate return in such seeds as they may choose, or such others as can be procured. Seeds of curious and valuable new trees, shrubs, and flowers, will be occasionally sent in small numbers to all punctual subscribers with instructions.

THE TRANSACTIONS OF THE N. Y. STATE AGRICULTURAL SOCIETY have been received, and will be noticed in our next number.

GREAT SALE OF STOCK.—We beg to call the particular attention of our readers to the sale of Stock advertised in this number of our paper by Col. J. M. Sherwood, of Auburn, New York. We have often had the pleasure of examining his flocks and herds, and think them equal to anything of their kind in the United States. He was judicious in his first selections, and has since bred with great care and intelligence. With the present high prices of produce, our farmers can well spare the means for improvements; and what among these is more desirable or pays better than choice breeds of stock? A most excellent opportunity is now offered by Col. S., in the sale of his fine animals, which we hope the agricultural community will improve for their benefit. Whatever is offered, gentlemen may be assured will be sold *without reserve*, they can therefore bid at this sale with the utmost confidence that it will be conducted throughout in good faith.

MASTODON COTTON.—Since the appearance in our pages of Mr. Abbey's articles on this subject, we have received several communications from planters in Mississippi, saying that they have tried this cotton in different kinds of soil, highlands, swamp alluvions, and creek-bottoms, and that it has not answered their expectations. Indeed, they say it is not equal to common Mexican, and very plainly pronounce it a "gross humbug on the planting interest." We profess to know nothing of the merits of the case ourselves; but having seen this cotton highly commended for two or three years past in several of the most respectable journals of the South, we solicited Mr. Abbey, when on here last summer, to write us a series of articles on the subject, which he readily did. Several of our friends at the South are making experiments with it again this summer, and promise us next fall a candid statement of facts regarding it, which we assure them shall be promptly published in our journal. We trust, therefore, they will pardon us declining their present communications, and that they will patiently wait the result of further trials. No one can be more opposed to humbugs than ourselves, and no one can more sternly set his face against them; but at the same time we must not condemn too hastily, otherwise we may do great injury for want of proper knowledge, or a partial or unfortunate trial of the matter in hand.

MEMBERS OF THE BOARD OF AGRICULTURE OF THE AMERICAN INSTITUTE OF NEW YORK.—Philip Schuyler, New York City, President; Nicholas Wyckoff, Bushwick, L. I., Vice President; J. Lawrence Smith, Smithtown, L. I., Secretary; R. T. Underhill, New York City, Charles Henry Hall, Harlem, N. Y., Thos. Bridgeman, New York City, W. J. Townsend, Astoria, L. I., Henry A. Field, New York City, Robert S. Livingston, Barrytown, Dutchess Co., Thomas Bell, Morrisania, Charles Dennison, Morrisania, E. M. Dodd, Orange, N. J., Edward Clark, Brooklyn, L. I., Francis Barretto, West Farms, N. Y., James Monroe, Harlem, N. Y., Benjamin L. Benson, Harlem, N. Y., Thos. Addis Emmet, New York City, Jordan L. Mott, Harlem, N. Y., Lewis G. Morris, West Farms, N. Y., John G. Bergen, Gowanus, L. I., James De Peyster, New York City, Samuel Walker, Boston, Mass., John O. Choules, Boston, Mass., H. A. S. Dearborn, Roxbury, Mass., R. L. Pell, Pelham, Ulster Co., N. Y., James Rennie, New York City, Roswell L. Colt, Patterson, N. J., Ambrose Stevens, New York City, D. S. Mills, Newtown, L. I., Robert Grant, Pleasant Valley, Dutchess Co., N. Y.

THE VAN SCHAICK PREMIUM.—The $1000 generously given by Myndert Van Schaick, Esq., of this city, to be bestowed by the American Institute in premiums of $100 for ten successive years, will be awarded at the Twentieth Annual Fair in October, 1847, as follows:

The Silk to be the growth of the United States, and to be manufactured within the year.

For the best piece of silk, 27 inches in width and 60 yards in length,	$50
For the best piece of silk for handkerchiefs, 60 yards in length,	30
For the best piece of silk velvet not less than 20 yards,	20
For the best exhibition of silk ribbon, not less than 12 pieces of 10 yards each,	20
For the best reeled silk, not less than 10 lbs.,	10
Second best, do do do	5
For the best sewing silk of any color,	10
For the best bushel of peanut cocoons,	10
Second best do do	5

TO ADVERTISERS AND CORRESPONDENTS.—*Please to remember* that in consequence of the large edition of our paper, and the necessity of going to press at an early day in order to get it out in season, all matters of correspondence should be forwarded us *by the first week* of the preceding month, and advertisements by the second week. For example, if an article be destined for August number, forward it as early as the 7th of July, if an advertisement, by the 14th, or earlier if convenient. Any favors coming to hand later than the above dates are liable to lie over for a succeeding number of the paper.

This we often regret, for, in consequence, the articles are frequently inserted quite out of season. We wish correspondents would reflect, that it is better to be a month *too early* than a month *too late*.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JUNE 19, 1847.

ASHES, Pots,	per 100 lbs.	$4 75	to	$4 81
Pearls,	do.	6 00	"	6 06
BALE ROPE,	lb.	5	"	6
BARK, Quercitron,	ton,	37 00	"	40 00
BEANS, White,	bush.	1 25	"	1 75
BEESWAX, Am. Yellow,	lb.	26	"	30
BOLT ROPE,	do.	11	"	12
BONES, ground,	bush.	40	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	25
Shipping,	do.	9	"	15
CANDLES, Mould, Tallow,	do.	10	"	12
Sperm,	do.	25	"	38
Stearic,	do.	20	"	25
CHEESE,	do.	5	"	10
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	10	"	14
COTTON BAGGING, Amer. hemp,	yard,	11	"	14
FEATHERS,	lb.	25	"	34
FLAX, American,	do.	8	"	9
FLOUR, Northern and Western,	bbl.	7 75	"	8 12
Fancy,	do.	8 50	"	9 00
Southern,	do.	7 75	"	8 00
Richmond City Mills,	do.	9 00	"	9 50
Buckwheat	do.	4 50	"	5 00
Rye,	do.	6 50	"	6 75
GRAIN—Wheat, Western,	bush.	1 75	"	1 90
Southern	do.	1 70	"	1 80
Rye,	do.	1 15	"	1 20
Corn, Northern,	do.	1 00	"	1 05
Southern,	do.	98	"	1 00
Barley,	do.	70	"	75
Oats, Northern,	do.	55	"	60
Southern,	do.	45	"	50
GUANO,	do.	2 50	"	3 00
HAY, in bales,	100 lbs	50	"	55
HEMP, Russia, clean,	ton.	275 00	"	280 00
American, water-rotted,	do.	160 00	"	220 00
American, dew-rotted,	do.	140 00	"	200 00
HIDES, Dry Southern,	do.	7	"	9
HOPS,	lb.	8	"	10
HORNS,	100.	2 00	"	10 00
LEAD, pig,	do.	4 50	"	4 56
Sheet and bar,	lb.	4½	"	5½
MEAL, Corn,	bbl.	5 25	"	5 50
Corn,	hhd.	20 00	"	22 50
MOLASSES, New Orleans,	gal.	30	"	32
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	2 50	"	2 62
Pitch,	do	88	"	1 06
Rosin,	do.	75	"	85
Turpentine,	do.	3 25	"	—
Spirits Turpentine, Southern,	gal.	35	"	36
OIL, Linseed, American,	do.	65	"	75
Castor,	do.	75	"	95
Lard,	do.	85	"	90
OIL CAKE,	100 lbs.	1 50	"	1 75
PEAS, Field,	bush.	1 25	"	1 75
PLASTER OF PARIS,	ton.	2 25	"	3 00
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	10 00	"	13 75
Prime,	do.	8 50	"	9 50
Smoked,	lb.	7	"	11
Rounds, in pickle,	do.	5	"	7
Pork, Mess,	bbl.	14 50	"	17 00
Prime,	do.	12 00	"	13 62
Lard,	lb.	9	"	10¼
Bacon sides, Smoked,	do.	6	"	8
In pickle,	do.	5	"	7
Hams, Smoked,	do.	8	"	12
Pickled,	do.	6	"	10
Shoulders, Smoked,	do.	6	"	8
Pickled,	do.	5	"	7
RICE,	100 lbs.	4 75	"	5 75
SALT,	sack,	1 25	"	1 35
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	7	"	10
Timothy,	bush.	2 00	"	4 00
Flax, clean	7 do.	10 00	"	11 00
rough,	do.	9 25	"	9 50
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	6	"	9
SUMAC, American,	ton,	35 00	"	37 50
TALLOW,	lb.	8	"	9
TOBACCO,	do.	2	"	7
WHISKEY, American,	gal.	34	"	35
WOOLS, Saxony,	lb.	35	"	60
Merino,	do.	30	"	35
Half blood	do.	20	"	25
Common do		18	"	20

REMARKS.—There is a slight fall in Ashes and something more in Flour since our last. Beef and Pork have advanced a trifle.

Money is very abundant and business brisk.

The Weather is very favorable for the crops, sunshine and rain alternating just right in this quarter. We notice some grumbling about the wheat crop west of us, but, on the whole, are inclined to think we shall have a full average. That of Georgia, the Carolinas, and part of Virginia, is already harvested, and proves an uncommonly good yield. Other crops are highly promising.

ACKNOWLEDGMENTS.—Specimens of Swaar Apples from Barnabas Miller, of Catharine, N. Y.; List of Premiums to be awarded at the 3d Annual Fair of the Society of Agriculture and Horticulture of West Chester County, N. Y. 1847; Rules and Regulations to be observed at the 5th exhibition of the Massachusetts Charitable Mechanic Association for the Encouragement of Manufactures, &c., to be held in Boston on the 15th of September next; Regulations for the Exhibitions of the American Agricultural Association to be held in the City of New York on the 15th of September next; List of Premiums offered by the Seneca County Agricultural Society, to be held at Ovid, N. Y. on the 14th and 15th of October next; Premiums offered by the Worcester county Cattle Show to be held at Worcester, Mass., on the 23d of September next; Descriptive Catalogue of Kenrick's Nurseries, Nonantum Hill, Newtown, Mass.; Bardwell's Treatise on Teeth; The Missouri Farmer; Also the Proceedings of the Agriculturists' and Mechanics' Association of Louisiana, held at Baton Rouge, in January last, containing an Oration by J. D. B. De Bow, Esq., and an Essay by B. M. Norman, with Reports of Committees, &c.

To CORRESPONDENTS.—Communications have been received from Peter A. Remsen, J. M. C., R. L. Allen, W. Bacon, Wm. R. Prince, N. Longworth, and B. P. Johnson.

SEED BUCKWHEAT,

WITH an assortment of other Field and Grass Seeds, including Furze Top, producing a fine after growth. Also some choice varieties of English Seeds of late importation, for sale by

jy A. B. ALLEN & CO., 187 Water st. N. Y.

FOR SALE.

KAGENBUSCH & CO'S GERMINATING COMPOUND, employed in steeping all kinds of seeds previous to sowing, for promoting their growth. Also, K. & Co.'s *Concentrated Chemical Manures*, prepared on the soundest scientific principles.

jy3t A. B. ALLEN, & CO., 187 Water st., N.Y.

HORSES FOR SALE.

THREE Pairs Fine Horses, now in the country; bay and brown with long tails; well matched, fine travellers, and superior; bred in Western New Yerk. Address J. M. Sherwood, Auburn, N. Y.; and A. B. ALLEN, 187 Water st., N. Y.

DUCHESS AGRICULTURAL INSTITUTE.

This institution, located on the *Wilkinson Premium Farm*, in the Western valley of Union Vale, Duchess Co., N. Y., is still in successful operation, having commenced the summer Term on the first of April, with its usual number of pupils. The Principal, gratefully acknowledging the support of his patrons for the past year, respectfully solicits at the hands of the public that patronage which his efforts and the character of the institution justly claim, and hereby pledges himself to endeavor to continue carefully to guard the morals of his pupils, and let their course of instruction be such as to render them, not only thorough, practical, and scientific Farmers, but, accomplished Gentlemen

Pupils received at any time during the year. The winter term commences OCT. 1ST. on which day, as well as on every Wednesday throughout the year, a conveyance will run regularly from the Steamboat Pier, Poughkeepsie, to the Institute, for the conveyance mails, passengers, and its general convenience.

Fee for the year $200, payable semi-annually in advance, which includes Tuition, Board with Beds and Bedding, Toilette Furniture, Washing, Mending, Fuel and Lights. For further particulars address JOHN WILKINSON,

Principal of Duchess Ag. Inst., Poughkeepsie, Duchess Co., N. Y.

REFERENCES.

Board of the Am. Institute, N. Y.
" " Agricultural Association,
ZEBEDEE COOK, Esq.,
THOS. McELRATH, Editor N. Y. Tribune,
BENJ. F. WHEELWRIGHT, Esq., Pres. Greenwich Bank,
WM. A. DAVIES. Esq., Pres. of the Farmers and Manufacturers Bank, Poughkeepsie,
CHAS. BARTLETT, A. M., Prin. Collegiate School, Poughkeepsie,
Rev. ABM. POLHEMUS, Hopewell, Duchess Co.
A. B. ALLEN, New York.

POTASH FOR MANURE.

FOR SALE—Scrapings of Potash, equal in value to the first quality merchantable, for all agricultural purposes. Price 3½ to 4 cts. per lb.

THE BEST HISTORY OF ENGLAND EXTANT.

THE

PICTORIAL HISTORY OF ENGLAND:

Being a History of the People as well as of the Kingdom to the Reign of George III.

PROFUSELY EMBELLISHED

BY MANY HUNDRED ENGRAVINGS ON WOOD

OF MONUMENTAL RECORDS; COINS; CIVIL AND MILITARY COSTUME; DOMESTIC BUILDINGS, FURNITURE, AND ORNAMENTS; CATHEDRALS, AND OTHER GREAT WORKS OF ARCHITECTURE; SPORTS, AND OTHER ILLUSTRATIONS OF MANNERS; MECHANICAL INVENTIONS; PORTRAITS OF EMINENT PERSONS; AND REMARKABLE HISTORICAL SCENES.

TO BE COMPLETED IN ABOUT 40 NUMBERS, AT 25 CENTS EACH, FORMING FOUR VOLUMES IMPERIAL OCTAVO.—VOLS. I. AND II. NOW PUBLISHED.

CRITICAL OPINIONS.

I HAVE examined the Pictorial History of England with attention, and am very happy to bear my testimony, as far as it is worth any thing, to the merits, both of the plan and the execution. There is a multitude of facts which tend to illustrate the character and circumstances of a nation, but which have so little to do with the regular march of events, that the historian finds incalculable embarrassment in incoporating them into his work. This has led one of the good English historians, Dr. Henry, to execute a work on a plan similar to that of the Pictorial History, in which the different departments are discussed in separate chapters, without an attempt to weave them into the narrative. It is scarcely possible, however, for one man to do justice to such a variety of topics, involving researches into civil history, jurisprudence, public economy, arts, literature, and fashion. These have been committed, in the Pictorial History, to different persons, some of whose names are a sufficient guarantee to the excellence of their performance. The result is, that every step in the progress of the British Empire toward its unprecedented greatness has been carefully traced, and the sources and the results of its wonderful prosperity fully exhibited to the eye. The parts of the book devoted to the resources of the country, to its antiquities, arts, and letters, are particularly curious and instructive; and there is a spirit of candor and liberal criticism running through the work, which commends it to the confidence of the reader—as much confidence as history can lay claim to.

The Pictorial Illustrations are admirable, not merely as embellishments, but for the information they convey; sustaining the text in a manner that presents it still more vividly to the reader's mind; conveying, indeed, much of which, from the nature of the subject, it is impossible to give an adequate idea by description alone. The reader who has studied English history in the great works of Hume, Lingard, or Hallam, will find still much to be gleaned from a work like the present, which, with the narrative of events portrayed by these historians, combines the fruits of antiquarian and critical researches in walks which they have not entered. He will gather, in short, from the study of these volumes a more thorough and satisfactory view of the interior organization of the country, its domestic resources, and its progress in civilization, than is to be found in any single work with which I am acquainted.—WILLIAM H. PRESCOTT.

One of the most entertaining works in the language: there is no single work on English history more valuable. It is impossible that a man should be familiar with this pictorial history alone without attaining some degree of refinement. Of course, we give this work our cordial recommendation: it is a far more valuable work than Alison's History, and should meet with a larger sale.—*New York News.*

The only readable and really instructive history of England, Scotland, and Ireland yet written. It is projected on a scale recommended by Macauley and Carlyle as the only veritable thing to be dignified with the name of history. The writers have concentrated a great deal of matter that is scattered in various learned tomes, and have presented it in a most attractive form.—*Louisville Journal.*

In this work there is a whole library of rare and delightful reading. We question whether there is in this city a score of persons who know the ancient customs and legends of our forefathers in the rich fullness with which they are there treasured. The portraits of the heroes of old, their dress, seals, armor, and all the accessories of private life, are given in fine engravings, for the originals of which a hundred old library museums have been ransacked. To read this work and examine the illuminations with care is in itself an education. The first number is not so winning; it implies the fatigue of breaking ground, but even before that is gone through, the attention is awakened, and when the second number has introduced you to a household intimacy with all the strange ways of these olden times, it has the fascination of romance.—*New York Sun.*

This work has a positive historical merit, greater, perhaps, than would be expected from its title, and is really an excellent history. It was compiled under the auspices of the Society in England for the Diffusion of Useful Knowledge. The Harpers are publishing it in a very handsome manner. The engravings are beautifully executed.—*New York Post.*

It is sure to commend itself to the lovers of literature and art, wherever they may be found. In point of typographical and pictorial merit, the History of England promises to be superior to any thing of the kind ever issued in our country. It will be printed on clear white paper, with new and beautiful type, and be profusely illustrated with many hundred engravings. Its literary character, too, well deserves the beautiful dress in which it will appear. This work is said to be the product of several of the most eminent pens of England, and it has received the warmest commendation from the critics of Great Britain.—*Charter Oak.*

Having been for some years familiar with the work, we can speak confidently of its merits, and trust that the generous enterprise of the publishers will meet with abundant encouragement from the public.—*Prot. Churchman.*

It is by general consent pronounced the most reliable, accurate, and admirably arranged History of Great Britain that has appeared. We have rarely, if ever, seen a book possessing stronger claims upon public patronage.—*New York Recorder.*

June, 1847.

SALE OF SHORT-HORNED CATTLE.
MERINO AND SOUTHDOWN SHEEP.

In consequence of becoming overstocked, I will offer for sale at my residence in the Town of Auburn, on Wednesday, the 8th of September next, *Forty Head of Short-Horned Cattle*, consisting of about thirty cows, heifers, and ten young bulls. I shall select from my whole herd one bull "Symmetry," two cows and two heifers, which will not be offered for sale. The balance, being about forty, will be sold without reserve. The original cows of this herd were selected from the best of the herds of the late Return Van Rensselaer, Francis Rotch, and L. F. Allen, whose reputation as breeders of fine stock requires no eulogy from me. The younger stock were bred with much care from my bulls, Archer and Symmetry; both have received the prize as the best bulls at the exhibitions of the N. Y. State Agricultural Society. "Archer" was bred by Francis Rotch, of Butternuts, from his famous imported cow "Adaliza" and got by "Rolla." (See Coats's Herd Book, No. 4091). Symmetry was bred by Geo. Vail, of Troy, out of his cow "Dutchess," and got by his Duke of Wellington (See Coats's Herd Book, No. 3654, or American Herd Book, No. 55,) both of which he imported from the herd of Thomas Bates, of Yorkshire, England. Full pedigrees will be prepared and printed by the 1st of July—to be had at the office of American Agriculturist, N. Y., Cultivator Office and Agricultural Rooms, Albany, Office of Genesee Farmer, Rochester, L. F. Allen, Black Rock, and at my residence.

Also, I will sell Ten (10) three-fourths and half-bred cows and heifers.

After the sale of the above Cattle, I will sell at auction one hundred (100) Merino Rams, 10 to 15 South Down Rams, Sixty (60) Merino and thirty (30) grade Merino Ewes—the Ewes sold in pens of three. That gentlemen not acquainted with my sheep may form some opinion of their value, I make the following statement, viz:—

I have cut five (5) clips of wool from my flock of sheep—the clip of 1846 averaged a fraction over four (4) pounds per head. (This was the largest). One of the five clips I sold at thirty-nine cents, the other four I sold at different times to one Manufacturing Company at forty cents per lb. *all* at my *own house*.

Terms of the Sale Cash or approved Endorsed Notes payable at the Bank of Auburn at three months with interest.

J. M. SHERWOOD.

Auburn, Cayuga County, N. Y. June 1st, 1847. jy3t

SHORT-HORN STOCK FOR SALE.

THE Subscriber has on his farm a few Spring Calves (Bulls and Heifers), which he will dispose of when three or four months old at $75 to $100 apiece. These animals were all got by his premium Bull, Meteor, a descendant of his imported Bull, Duke of Wellington and Duchess Heifer, both of which were from the celebrated short-horn herd of Thomas Bates, Esq., Yorkshire; and being out of good milking short-horn Cows, and possessing through the Bulls Duke of Wellington and Meteor some half, and others three-quarters, of the blood of the Bates Bulls, they will be valuable to such as wish to improve their herds.

Troy, June 15th, 1847. jy3t GEO. VAIL.

A BOOK FOR EVERY FARMER.

☞ 4000 COPIES SOLD IN ONE MONTH. ☜

JOHN P. JEWETT & Co., 23 Cornhill, Boston, have just published one of the most valuable works for farmers ever issued from the American press, entitled, THE AMERICAN VETERINARIAN, or *Diseases of Domestic Animals*, showing the causes, symptoms, and remedies, and rules for restoring and preserving health, by good management, with directions for training and breeding. By S. W. Cole, Editor Agricultural Department Boston Cultivator.

Mr. Cole has spent several years in compiling and testing the facts which he now offers to the farmers of this country. He has produced a work of great value to every man who keeps but a single Horse or Cow, but to the Practical Farmer its value can hardly be over estimated. The whole subject of the *Treatment of Domestic Animals* is treated in the most thorough manner, comprising the Horse, Ox, Cow, Sheep, Hogs, Dogs, Hens, Turkeys, Geese, Ducks, Birds, Bees, &c., &c. The whole is compressed into one volume of 288 closely printed pages, with 7 beautiful wood engravings, firmly bound in leather. To be sold at the low price of 50 cents, in order to bring it within the means of every man. No pains or expense have been spared on the part of the Author or the Publishers, to produce a work worthy a place in every Farmer's Library.

For sale at the principal Book and Agricultural Stores in the country. C. M. SAXTON, 205 Broadway,

j3t *Agent for New York.*

PERUVIAN GUANO FOR SALE.

THE Peruvian Company have directed their agent in the United States, Mr. Bartlett, to raise the price of Guano to $50 per ton, it will now be sold by us at the following prices:—

One ton or more.....2¼ cts. per lb.
Smaller quantities.....2¼ to 3 " " do.

No allowance for tare, and no charge for packages. Cartage extra.

This Guano is warranted genuine, and direct from the Peruvian Company's agent. A. B. ALLEN & CO., 187 Water-street

TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

THE Massachusetts Horticultural Society announces to the Public, that its Committee of Publication is preparing to publish the first number of a series of Transactions of this Society.

This publication has been for some years in contemplation, and materials have been collected for this purpose; but it has been hitherto delayed until the funds of the Society should enable it to be produced in a style of excellence which could not fail to render it both permanent, and an honor to the advanced state of the Horticulture of the present day.

It is intended that the work shall be in ROYAL OCTAVO, and the numbers shall appear as frequently as materials accumulate; each shall contain from four to six PLATES, chiefly of Fruits, but occasionally of Flowers, drawn and colored from nature, by the best talent the country can produce, and also the proceedings of the Society, including the reports of the weekly and annual exhibitions, to the date of publication.

The society hopes soon to offer such premiums for able communications on Horticultural subjects, as shall secure to these Transactions papers containing information of great practical value to all interested in this pursuit.

Although the authors of papers will alone be generally responsible for their contents, yet all accounts and descriptions of Fruits will be published under the immediate supervision of the Fruit Committee, and of Flowers under that of the Flower Committee; so that the authenticity of the Society will be attached to the most essential portions of their Transactions.

To establish a standard for all the present varieties of fruit, and to enable the public to judge of the quality of new kinds, as they shall be presented from imported trees, or from varieties originating in this country, will be one of the principal purposes of these Transactions, and will receive the particular attention, not only of the Committees of this Society, but also of the most experienced of its individual members.

The price to the members of the Society, will be about the cost of plates, printing, &c., and will not exceed seventy-five cents per number—to others the charge will be one dollar.

All communications intended for publication, may be addressed to J. E. TESCHEMACHER, Esq., Corresponding Secretary of the Society, Boston.

Orders and subscriptions for these Transactions, may be addressed to W. D. TICKNOR & Co., publishers, corner of Washington and School streets.

Horticultural Hall, School St.,
Boston, March 25, 1847.

COMMITTEE OF PUBLICATION,
J. E. TESCHEMACHER,

C. K. DILLAWAY,	JOSEPH BRECK,
EBEN'R WIGHT,	AARON D. WILLIAMS, JR.
SAMUEL WALKER,	E. C. R. WALKER, 3t m

BOARD IN ASTORIA.

HAVING taken the elegant and commodious house built by Mr. Grant Thorburn, the Subscriber is prepared to receive Boarders for the season. His location is only six miles from the City of New York, and can be reached twice each day back and forth by steamboat, or every hour by stage, from 6 A. M. till 8 P. M.

Astoria is situated at Hurlgate on the East River, and the scenery around is unsurpassed in the United States. The location is very healthy; and being open to the sea-breezes, with the advantages of salt-water baths, it is a very desirable summer residence.

Apply to George Norton, who formerly kept the Franklin House, at Tarrytown.

BLOOD STOCK FOR SALE.

SHORT-HORN and Devon Cattle, each thorough-bred of their kind. The Cattle of these Stocks have been bred for many years by the subscriber, and have been selected from the best breeds, and bred with the latest and most approved imported blood, with a particular view to the development of their most valuable qualities.

ALSO,

Cotswold, (long-woolled,) and South-down Sheep, of the best description, descended from the choicest and most celebrated English flocks.

They can be forwarded from the farm of the subscriber, east and north by canal and railroad, and mostly by steamboat, with safety and despatch. Address

LEWIS F. ALLEN, Black Rock, N. Y.

Black Rock, April 1, 1847. 3tm

CHEAP PLOWS.

SINGLE-HORSE Plows, from $2.00 to $3.00 each.
Double-horse do. " $3.00 to $6.00 "

The woods of these Plows are made of the best of *White Oak*. The handles are *steamed* and then *bent crooked*, instead of being *sawed* out. This makes them much stronger and more durable. The castings are made from good *new pig iron*, without any admixture of *old scrap*. The wrought iron work is of excellent quality, with *extras* attached to the plows. A liberal discount to dealers. A. B. ALLEN & CO., 187 Water st., New York.

NEW YORK AGRICULTURAL WAREHOUSE.

ON COMMISSION.

FARMERS, Planters, and Gardeners, will find the LARGEST AND MOST COMPLETE assortment of Agricultural Implements of all kinds, at this Establishment, ever offered in the New York Market. Most of these implements are of new and highly improved patterns, warranted to be made of the best materials, put together in the strongest manner, of a very superior finish, and offered at the lowest cash prices.

Among these implements are upwards of FIFTY different kinds of Plows, manufactured by Ruggles, Nourse & Mason, of Worcester, Mass, also in New York—for the South as well as for the North; Harrows of different patterns and sizes; Rollers of wood and cast-iron on a new principle; Seed Sowers for all kinds of seeds, a recent invention; Cultivators, with different kinds of teeth; Horse powers of wood or of cast-iron, very strong and superior; Grain Threshers; Fanning Mills; Mills for grinding corn, &c., a new invention; Corn Sheller for hand or horse power, the latter shelling 200 bushels of ears per hour; Vegetable Cutters, will cut a bushel of roots for Cattle in two minutes; Hay, Straw, and Corn-stalk Cutters; Scythes, Rakes, Shovels, Spades, Hoes; and Field and Garden tools of all kinds.

Castings for the various kind of Plows manufactured in Worcester, Peekskill, and New York.

Seeds for the Farmer and Gardener.—A choice assortment of the various kinds, such as Improved Winter and Spring Wheat, Rye, Barley, Oats, Corn, Beans, Peas, Rutabaga Turnip, Cabbage, Beet, Carrot, Parsnip, Clover and Grass Seeds, and improved varieties of Potatoes.

Wire-Cloths and Sieves.—Different kinds and sizes constantly on hand.

Fertilizers.—Peruvian and African Guano, Lime, Plaster of Paris, Bone-dust, &c.

Fruit and Ornamental Trees and Shrubs.—Orders taken for these, and executed from a choice of the best Nurseries, Gardens, and Conservatories, in the United States.

Horses, Cattle, Sheep, and Swine.—Orders executed for Stock of all kinds, to the best advantage.

The American Agriculturist Almanac.—32 pages, with wood cuts. Price $15 per thousand.

Agricultural Books.—A general assortment of all kinds.

A liberal discount made to dealers.

A. B. ALLEN & CO., 187 Water Street, N. Y.

A COMPANION TO THE AMERICAN AGRICULTURIST.

THE AMERICAN ARCHITECT.

Comprising original Designs of Country Residences, adapted to the Taste and Circumstances of the Merchant, the Farmer and the Mechanic. By an Association of Practical Architects.

The object of this Publication is to introduce ORIGINAL DESIGNS of *Country Seats*, adapted to the varied taste and circumstances of an American Population—from the elegant VILLA to the simple COTTAGE, and plain FARM-HOUSE; from Planters' Mansions to Village Domicils. In a word, every variety of Rural Residences will be embraced, in order to meet the views of every person desiring a Country House. In respect to style, cost, arrangement, finish, &c., utility will never be sacrificed Economy in the outlay, with an appropriate style, will always be kept in view. The requisite details, specifications, plans, and directions, with a careful and reliable *estimate of the cost*, will accompany each design. These are essential features of a *Practical Work*—and no labor will be spared in their preparation.

Published Monthly—Price 25 cents each number; or five Nos. for One Dollar.

Address (post paid) C. M. SAXTON, 205 Broadway, New York.

Office of the American Agriculturist.

COUNTRY SEAT AND FARM.

FOR SALE.—A Farm and beautiful Country Seat, at Flushing, L. I. one mile from the steamboat landing—containing about sixty acres of land, under the best state of cultivation, having a fine view of the bay and surrounding country. On the premises are a two-story dwelling-house (handsome interior), marble mantels and folding doors, containing ten rooms, large garret and cellar, with kitchen, washroom, and milkroom—attached, two large barns, carriage-house, stable and other outbuildings—also gardoner's and farmers' cottages. The gardens are tastefully laid out with fruit and flowers, upwards of 100 peach-trees, and over 250 specimens of fruit-trees of various kinds, large green-house, hot-house, pots, &c., &c., and one of the most splendid vineries of its kind in this country or in Europe, 186 feet long, and 22 feet wide, with span roof, containing 102 superior foreign Grape-vines, of 21 varieties, and 40 Peach, Nectarine, Apricot, and Greengage trees, on arched trellises in the centre, bearing large fruit. The vines commence bearing this summer. Further description is unnecessary, as persons disposed to purchase, will view the premises. The facilities of communication between Flushing and the city, by steamboat and stages, are too familiar to need description.

For terms of sale, which will be reasonable and accommodating, apply (if by letter post-paid) to W. H. Franklin and Son, Broad Street, New York, or to the subscriber at Flushing.

JACOB R. VALK.

THE AMERICAN AGRICULTURIST.

ISSUED Monthly, by C. M. SAXTON, 205 Broadway, New York, containing 32 pages, royal octavo.

TERMS—One Dollar per year in advance; three copies for Two Dollars; eight copies for Five Dollars.

Each number of the Agriculturist contains but one sheet, and is transported by mail under the same regulations as newspapers, viz.: *free* any distance not over 30 miles from its place of publication; over this and within 100 miles, or to any town in the State of New York, *one cent* postage on each number, and *one and a half cents* if over 100 miles, without the State.

The subscription books of the Agriculturist will continue to be kept at the old office of publication, 205 Broadway, by CHARLES M. SAXTON, of the late firm of Saxton & Miles.

Travelling Agents wanted, to whom the most liberal compensation will be allowed.

CORN-MILLS.

THE subscribers are now supplied with a newly invented Cast-Iron Mill, for grinding Corn and other Grain, either by hand or horse power. It will grind from 3 to 4 bushels per hour. Price $30.00.

Also the hand Corn-Mill, which grinds from 1 to 1½ bushels per hour. Price $6.50.

These Mills are highly economical and convenient, and every farm and plantation ought to have them. They are simple in construction, not liable to get out of repair, and are easily operated. When one set of plates is worn out, they can be replaced by others at a trifling cost.

A. B. ALLEN & CO., 187 Water st., N. Y.

AMERICAN AGRICULTURE,

BY R. L. ALLEN.

THE cheapest and most valuable book for a Farmer ever printed; being a complete guide, both practical and scientific, for the management of the Farm. Containing a concise and plainly written exposition of the general duties pertaining to the cultivation of the Earth, the breeding of Live Stock, &c. &c.

The reader can form some idea of what he is going to buy from the fact that this work treats, in a plain practical manner, of upwards of *Eight Hundred* different subjects, important to the Farmer, the Planter, the Stock-Breeder, and the Horticulturist. It also touches on Geology, Chemistry, Botany, Anatomy, Physiology, and Mechanics, as applicable to Agriculture.

This book contains 437 pages, beautifully bound in cloth gilt, suitable for a library. It would be a most valuable premium for distribution among Agricultural Societies, to which, and to the Trade, a liberal discount would be made. Price only one dollar.

For sale by A. B. ALLEN & CO., 187 Water st., and
tf C. M. SAXTON, 205 Broadway, N. York.

BAGLEY'S CELEBRATED GOLD PENS.

A. G. BAGLEY & CO.'S Ever-pointed Gold Pen, the best article of the kind ever offered to the public, together with a large assortment of Pencil Cases, and their Patent Extension Cases for Pen and Pencil, may be found at the office of the manufactory, 189 Broadway, New York. jy2t

CONTENTS OF JULY NUMBER.

Transplanting Cabbages; How to Make Good Vinegar.... 201
How to Make Welsh Rare-bits; Blackberry Mush; Cultivation of Turnips, No. 1 202
The Barberry-Bush not injurious to Grain; Patent Self-acting Cheese-Press 204
Mode of Draining and Reclaiming Sink-Holes, or Stagnant Pools; Domestic Flora of China, No. 1 205
The Garden-Engine; Northern Plows for the South..... 206
Revisit to Gen. Johnson's Farm; New York Farmer's Club; Special Premiums of the American Institute; Items 207
Review of February Number of the Agriculturist, Reviewer 208
Management of Honey-Bees, No. 10, T. B. Miner..... 211
Letters from the South, No. 9, R. L. Allen..... 214
Design of a Farm-House, Mrs. James M. Ellis; Choice of Trees and Shrubs for Cities and Rural Towns, No. 1. 215
A Cheap Farm-House, Solon Robinson..... 216
Preservation of Peach-Trees from the Attack of Borers, B. F. Ward 218
Road Manure, J. S.; How to Make Sugar of Milk; Saturation of Liquids; A Bog-Cutter, E. Jackson 219
Mr. Norton's Letters, No. 5, John P. Norton; Zinc Pans Injurious to Cream 220
Wheeler's Horse-Power and Thrasher; Mode of Keeping Milk to Prevent Souring, A Traveller 221
Planting Cuttings in Vineyards, Pax; Improved Candle-Wicks; Exhibition of the N. Y. State Ag. Soc. 222
LADIES' DEPARTMENT: Book-Farming—The Shrew-Mole and Cut-worm, Old Lady's Diary; Rearing of Silk-Worms, S. H. R.; How to Make Good Tea 223
BOYS' DEPARTMENT: Anecdotes of Animals, No. 1 Dr. Franklin's Mode of Learning to Swim; A Word to Boys 225
Foreign Agricultural News..... 226
Editor's Table..... 227
Review of the Market..... 229